

# CLINICAL MEDICINE AND SURGERY

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• Editor •

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## EDITORIAL

### Percival Pott

Surgeon and Teacher

IT has been said that many of the world's great discoveries and advancements in learning have been the result of accidents; but it is notable that when an "accident" has resulted in epoch-making developments, it has happened to one who possessed a mind prepared to perceive its connotations.

When Percival Pott, the great British surgeon, fell in the street and sustained a peculiar fracture of the lower end of his fibula, it was undoubtedly an accident; but when he utilized his period of enforced confinement to begin his career as a prolific and masterful medical writer, that was the result of long and extensive preparation.

Pott was born in 1714, and at the age of thirty years became surgeon at the famous St. Bartholomew's Hospital ("Barts"), which position he held until one year before his death, in 1788. He was, of course, a purely clinical surgeon, of the school of Paré and Wiesman, because his illustrious pupil, John Hunter, had not yet laid the foundation of surgical pathology and "made surgery a gentlemanly profession."

However, he was a man of keen observation and a careful student, and his books had a profound effect upon the development of surgery in the eighteenth century. His treatise on hernia appeared in 1756; that on head injuries in 1760; on hydrocele in 1762; on fistula in ano in 1765; on fractures in 1768; on "chimneysweep's cancer" (cancer of the

scrotum) in 1775; and his epoch-making pamphlet on palsy from spinal deformity ("Pott's disease") in 1779.

Although the name of Pott is now attached to caries of the spine, he did not describe the disease itself nor suggest its tuberculous origin (which had been suspected by Hippocrates; confirmed by Galen; revived by Platner, in 1744; but was not established, by Delpech, until 1816, twenty-eight years after the death of Pott), but only the deformity and its sequelae.

None the less, the name of Pott is scattered throughout our textbooks, in Pott's aneurysm (aneurysmal varix); Pott's fracture (of the lower end of the fibula, with involvement of the tibia and the ligaments); Pott's gangrene (senile gangrene), Pott's tumor (circumscribed edema of the scalp, associated with osteomyelitis of the skull bones); as well as the world-renowned Pott's disease (sometimes also called Pott's caries, curvature or paralysis). Unfortunately these eponymic terms are about all the recollection of this truly great man which remains; except, in some quarters, the remembrance of the fact that he was a teacher of John Hunter.

Pott was a many-sided man. Besides caring for the largest surgical practice in the London of his time (he was a master of anatomy, a rapid and dextrous operator, and inspired great confidence in his patients, which was essential before the days of anesthesia), he

had a discriminating taste in literature and was interested in the social life of his generation, and in economic questions and various charities, to which he contributed generously. He was the typical English gentleman of the eighteenth century—charming in manner, handsome, kindly, and always considerate of others.

We of today will be wise, and should be happy, if we can take a number of leaves from the book of life of this eminent and successful British surgeon, teacher and medical author.

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Blessed is the man who is, in himself, an entertainer and an audience—who does not need someone to hear himself think.—*Phoenix Flame.*

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### Salvaging Deaf-Mutes

TOTALLY deaf children (congenital deaf-mutes) and those who have lost their hearing at a very early age are almost entirely isolated from their environment, so far as human communication goes, and have presented such a discouraging prospect that the parents frequently lose interest in them, and they are often treated as "idiots," although their actual mental capacity may be normal or higher.

Through the efforts (begun as a hobby) of the distinguished British otolaryngologist, Philip Franklin, F.R.C.S., of London (who was the first English-speaking writer to recommend nasal ionization in the treatment of hay fever and kindred disorders), a way now seems to be opening for salvaging these pathetic children and returning them to a practical degree of normality.

The basis of this new method is the stimulation, development and training of the tactile sense (from which the sense of hearing developed), to the point where the child can recognize tactile vibrations as connected with speech and other sounds, and a mass attack upon the intellect by combining these vibrations with visual stimulation by means of pictures and other objects corresponding to the vibrations received. Granted a normal degree of intelligence (as shown by standard performance tests), these children, as soon as they begin to appreciate the significance of the vibrations they receive, can be taught to talk intelligibly. It should go without saying that, before using this method, all physical abnormalities of the organs of hearing, phonation and word formation, and their accessory structures, should be corrected by surgery or otherwise.

The essential apparatus for this work consists of an audio-frequency amplifier and a contrivance, devised by the Bell Telephone Company at the suggestion of Prof. R. H. Gault, of Northwestern University, Chicago, and known as a *phonotactor*. By these means the greatly amplified vibrations of speech and other sounds are conveyed to the finger tips of the deaf child, and to the parts of the head adjacent to the ear. With the use of these mechanisms must be combined the patient services of persons trained for and genuinely interested in this work.

Of course, those children who have, at any time, been able to receive and store auditory sensations, have a decided advantage over the congenitally deaf; but it is astonishing and highly gratifying to see the improvement, even in these latter, under this form of instruction. "Lost" children are "found" again.

The earlier a diagnosis is made and this method applied, the better the results will be. Children of from eighteen months to three years of age respond excellently.

This work is still in its infancy, and the literature upon it is scant, but a highly instructive article by Dr. Franklin appeared in the *Lancet* (London) for Feb. 9, 1935, and should be consulted by those who are interested in the subject.

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To make your patients think about their illness is to tamper with the laws of Nature.—DR. AXEL MUNTHE.

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### Injecting Drugs

THERE is, today, a long list of medicinal substances—serums, vaccines, endocrine extracts and chemotherapeutic products—which *must* be injected into the tissues to produce their characteristic results, and many more which, when so injected, act more promptly, more powerfully and more reliably than they do when given by mouth.

All of these remedies, and technics for their use, have been described from time to time, in various professional periodicals and textbooks, but physicians who desired certain bits of information along these lines might have had to spend a good deal of time and energy in discovering them.

That condition has now been remedied by the publication of a book. (reviewed in this issue) which brings together, under one cover, all the practical points which any medical man needs to know in order to use parenteral methods successfully.

Nor is this solely a question of technical practice. More and more, the patients who consult physicians want something tangible done for them at once, and less and less can they be relied upon to follow the doctor's directions as to the taking of medicines at home and as to reporting regularly for observation. Moreover, the matter of the unauthorized refilling and the "peddling" of prescriptions cannot be wholly overlooked. If drugs are injected, we *know* that the patient is receiving them, that he will return for further observation and treatment, and that his neighbors are not making mistaken and unauthorized use of our therapeutic suggestions.

Here is one method of treatment in which the "irregulars" cannot possibly compete with the regular medical men, and those who do not make full and daily use of it are doing themselves a professional and economic injustice.

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The only path you can follow in the dark is one you have followed often by day.—ROBERT QUILLEN.

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### Disaster and Human Nature

**O**BSERVING the frequent instances of greed, jealousy, revenge and other unlovely or disastrous manifestations of the destructive emotions, which are daily recorded in the public prints, the pessimist is prone to express his entire lack of faith in human nature and his despair as to its ultimate destiny.

But when some dire calamity falls upon any part of the nation, the veneer of selfishness, which is largely a product of our modern way of life, cracks off and the solid structure of brotherly feeling and helpfulness is exposed.

The recent floods in the East have furnished another opportunity for rejoicing to the optimists. Those who could labor, with mind and body, for the relief of the stricken ones, have done so eagerly; and those who could not, have given freely of the "canned labor" out of their pocketbooks.

The medical men and the institutions in which they work have demonstrated, once more, that fiduciary considerations are purely secondary, and that the relief of human suffering is the only thing that really matters. This is nothing new, to those who remember—but our memories of the kindly and glorious things of life tend to be so deplorably short and unreliable.

Let us, then, observe with particular attention and store up for the future this most recent display of how splendid human nature *really is*, so that, when the shell of selfishness closes in once again, we may not forget what, in truth, lies under it.

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We disdain and hate from lack of self-comprehension, and we understand in proportion as we study ourselves.—RAMÓN Y CAJAL.

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### Menstruation

**S**INCE menstruation occurs in the females of all the species of primates, including the anthropoid apes and the old-world monkeys, as well as man, it seems certain that, when intelligence began to develop, this striking recurrent phenomenon must have been among the first to claim the attention of the dawning human consciousness. And some of the earliest records, and also the traditions and customs of primitive peoples, attest the soundness of this supposition, as well as the fact that, from remote antiquity, this function has been the center of a great structure of regulations, taboos and superstitions.

Our fathers laughed at the rites and observances connected with the catamenia, as set forth in the Mosaic and earlier codes of rules for conduct; but the present generation of students is coming to feel that many of them had a sound basis, and has demonstrated that certain stories, which have been looked upon as products of a disordered fancy, are simple statements of observed facts.

In the grape-growing regions of France, no menstruating woman is permitted to take any part in the making of wine; and the women who work in the perfume factories are required to stay away from their jobs during the period of their flow. These regulations were made because it had been noticed that the touch of a woman in this condition might spoil an entire batch of these delicate vegetable products. It has also been recorded that if cut flowers are handled by certain women (not all, but a considerable number) when they are menstruating, the flowers will fade within a half-hour or less.

Recent researches have shown that the sweat (and also, to a less degree, the saliva and tears, but *not* the characteristic discharge itself) of certain women is demonstrably toxic to plants during their menstrual periods, but not at other times.

The old ideas, based upon the observation

that the lower animals, at the time of estrus or "heat," sometimes show a blood-tinged discharge, have been thoroughly discredited by modern endocrinologists, and it now seems certain that, in the vast majority of women, menstruation is not synchronous with ovulation (as was formerly supposed), but follows it after a lapse of from ten days to two weeks.

But while it now appears to be demonstrated that the majority of women ovulate between the eighth and sixteenth days after the beginning of a menstrual period, this is by no means always the course of events, and therefore the safety of the recently heralded "safe time," while generally so, is far from being ironclad in specific cases. The facts of the matter are still hazy, because the statements upon which the conclusions are based have been obtained largely from more or less ignorant women or those not trained in making and recording accurate observations.

As a matter of fact, while there is no doubt that the endocrines are prime factors in menstruation, there are sound investigators and thinkers who maintain that this function is based upon anatomy and chemistry as much as upon hormones. The statement that menstruation is the funeral services of a dead ovum is poetic, no doubt, but is, to all intents and purposes, inaccurate, because it has been shown that a woman or a female monkey can have a flow, indistinguishable from ordinary

menstruation and beginning at the expected time, without having ovulated at all during that month. Such a flow frequently occurs once after conception has taken place, and unless the obstetrician in charge of the case is alert to physical signs, may upset calculations.

Moreover, while estrin is a characteristic product of the endocrine system of human and animal females, a substance giving the same biologic reactions has been found, in small quantities, in the urine of men and in certain plants.

It now seems probable that the spiral arteries in the uterine mucosa (first described, but not understood, by William Hunter, late in the eighteenth century), together with a delicate and sensitive mechanism for controlling their contraction and relaxation, are the proximate cause of the phenomena

of menstruation and of many, if not all, of the disturbances of that function.

These random notes, based upon the statements of a distinguished anatomist, are intended merely to show that our real knowledge of the true mechanism of one of the basic human functions is still fragmentary and inconclusive, and to stress the necessity for keeping an open mind, even while we make use, to the best of our ability, of such assistance as science is now able to give us in dealing with the prevalent disorders of menstruation.

#### NEXT MONTH

**Dr. Harry E. Bacon, of Philadelphia,** will present a highly practical and well-illustrated article on the injection treatment of hemorrhoids.

**Dr. Emil T. Hoverson, of Chicago,** will discuss the influence of meteorologic conditions on the manic-depressive psychosis.

**Dr. Fred D. LaRoche, of Springfield, Mass.,** will consider the importance of the endocrines in diagnosis.

#### COMING SOON

"The Use of Oxidizing Agents in the Treatment of Vincent's Infection," by **Don C. Lyons, D.D.S., M.S., Ph.D., Jackson, Mich.**

"Diverticulum in the Sac of an Inguinal Hernia," by **Lane B. Kline, M.D., F.A.C.S., Newington, Conn.**

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#### Futile Journeys

*Never expect, by going here and yonder,  
To reach some fabled world you hoped to find.  
The traveler sees, wherever he may wander  
Only reflections of his heart and mind.*

G. B. L.

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# LEADING ARTICLES

## The Treatment of Seasonal Hay Fever

The Value of a Prescribed Diet as an Adjunct to Specific Pollen Therapy

By Herbert J. Rinkel, M.D., Kansas City, Mo.

**W**HETHER one considers the therapeutic problem in pollinosis at close range, by extensive and detailed study of a series of consecutive cases, or whether one evaluates this problem in perspective, by comparing results of different plans of treatment in groups of patients, one soon recognizes the multiplicity of factors involved, other than sensitization to pollens.

Food is a common secondary factor, and its importance has been emphasized by Eyer-mann<sup>1</sup> and others<sup>2</sup>. Eyer-mann was among the first to determine the value of eliminating specific foods as an adjunct to the treatment of pollinosis, and his work stimulated my interest in this subject. A careful consideration of the relation of food to the clinical course of hay fever during the past three seasons has convinced me<sup>3</sup> that specific dietary regulation is of prime importance in the treatment of seasonal hay fever.

This report presents the findings obtained in 25 unselected patients with seasonal pollinosis, in whom the factor of food sensitization has been carefully studied. In 6 instances a *specified diet*, determined pre-seasonally by means of the leukopenic index, was used as an adjunct to pollen therapy.

### Resume of Findings

These 25 patients ranged in age from 4 years to 44 years. They were all subject to seasonal hay fever and 12 of them had seasonal asthma as well. The duration of the hay fever was from 2 years to 35 years. On skin testing there were reactions as follows: Foods varied from none, in 2 cases, to 34, with an average of 17 reactions. The epithelial reactions varied from none, in one case, to 12, averaging 5 reactions. The pollen reactions were from 3 to 26, with an average of 10.

In this group of patients, with one exception, we have demonstrated a total of 139 sensitizations to foods, the incidence being from 1 to 18, with an average of 5 plus. No attempt was made to demonstrate the specific effect of many foods, because it was not necessary for clinical purposes. Had this been done the figures would have been even

higher. This statement is based on the observations made in those cases where a complete food analysis had been made. The essential findings are summarized in Chart I.

CHART I.

Case No.	Age	Duration Hay Fever (Years)	Month of Onset of Symptoms	Skin Reactions				Total Proved Sensitizations to Foods
				Animal Dander	Pollen	Foods		
						Total	Proved Etiologic	
1	18	14	8	9	19	18	2	3
2	6	3	8	8	12	14	1	3
3	34	7	8	8	8	25	7	14
4	31	12	8	8	19	31	1	6
5	26	24	3	5	22	19	3	5
6	38	10	8	7	13	7	0	3
7	42	25	8	6	18	10	4	4
8	44	6	8	5	20	17	1	1
9	22	15	8	0	13	21	2	6
10	17	10	8	1	12	9	0	1
11	28	14	8	1	21	30	3	3
12	10	6	8	12	26	27	2	5
13	34	6	8	9	14	8	2	2
14	54	35	8	5	8	17	0	0
15	36	2	8	5	15	0	3	18
16	4	2	8	2	6	21	8	12
17	17	8	8	6	15	6	1	4
18	23	8	8	4	9	20	2	2
19	31	4	8	8	18	21	2	2
20	28	5	8	6	14	30	2	3
21	11	2	5	4	20	34	1	5
22	18	10	5	7	9	25	3	3
23	26	1	8	2	3	0	0	3
24	37	6	8	3	8	18	1	9
25	10	5	7	8	12	18	4	19
Tot.				125	254	446	57	139
Avg.				5	10	17	2	5

The total proved sensitizations to food include those listed as "proved etiologic" under skin reactions. The clinical importance of the epithelial reactions was not determined, but they were eliminated.

\*Read before the Allergy Clinic and Round Table, Southern Medical Association, St. Louis, Missouri, November 19-22, 1935.

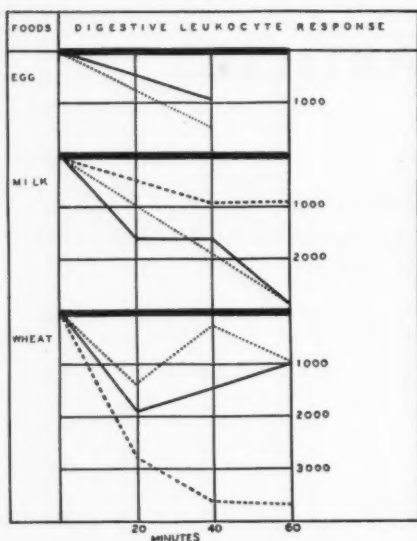


Fig. 1.—Digestive leukocyte responses to egg, milk and wheat in a patient with ragweed hay fever in whom these foods produced definite exacerbations of symptoms in the ragweed season. The solid line represents the leukocytic response during September, 1934. The dotted line represents the leukocytic response in November, 1934. The interrupted line represents the leukocytic response as determined in May, 1935.

The significant point is that the leukocytic response is such that one may make these tests preseasonally.

In no instance was a positive skin test accepted as an indication of sensitivity. In practically all of these 25 patients the possibility of the food sensitization was suggested by a combination of skin testing with subsequent records of the daily variation in hay fever symptoms. Where the clinical course indicated a possible food factor, manipulation of the diet was carried out with due regard to the botanical relationship of foods. Most patients were brought to the office for clinical testing and an accurate record kept of the symptoms before and after eating. The patients were observed for two to three hours, the only new factor being the eating of a test food. Foods which produced either nasal or respiratory symptoms were omitted until heavy frost.

The treatment of pollinosis, where the food factor was evaluated, was so satisfactory that it was considered worth while to use a prescribed diet, rather than to deny a patient certain suspected foods. In other words, it would be desirable, if possible, to determine the foods that could be eaten with impunity and then have the patient keep strictly on a diet of such foods.

There was no means of evaluating food sensitizations in seasonal hay fever, without first studying a patient during the pollen sea-

son, until the advent of the leukopenic index\* 4, 5. In the ragweed season of 1934 we first studied patients by means of the leukopenic index. The findings during and directly after the pollen season, as well as in the spring of 1935, indicated the practicability of this test for selecting a diet. The essential details are illustrated in the following case record:

#### Case Reports

**Case 1:** Mr. B., aged 18, was seen on September 14, 1934, with seasonal hay fever and seasonal asthma. He had been treated for five seasons with high pollen doses, without any definite improvement in his condition. His clinical history indicated that his symptoms did not vary with the daily pollen concentrations in the air, but with the ingestion of certain foods. Leukopenic indices were positive for all of the suspected foods—wheat, egg, and milk. These indices are illustrated by the solid line (Fig. 1).

These foods were eliminated, along with apples, beans, chocolate, and tomatoes, on the basis of skin testing. His pollen treatments were given at 48-hour intervals, using small doses of 8 to 40 units. He obtained complete relief of his asthma and at least 95 percent relief of his hay fever, within a few days' time<sup>3</sup>.

After the season these foods were replaced without symptoms. The patient continued eating them several weeks, at which time he reported for a recheck of the leukopenic indices of wheat, egg, and milk. These are illustrated by the dotted lines (Fig. 1). He was able to use the foods throughout the winter without difficulty. In May, 1935, the leukopenic indices were again made of wheat and milk. The results of the testing are indicated by the interrupted line (Fig. 1).

There was sufficient uniformity of the leukopenic indices taken during, just out of, and several months before the pollen season, that it was considered feasible to use the leukopenic indices preseasonally, to devise a specified diet for the pollen season. Four (4) patients were selected for this clinical problem, 3 of whom had been under treatment previously and one of whom was first seen in March, 1935, for tree hay fever, but who also had grass, pigweed, and ragweed pollinosis. In addition, a number of cases were studied, coseasonally, 5 of which are reported here—

\*The term was applied by Dr. Warren T. Vaughan to a series of post-ingestive total leukocyte counts, taken at 15- or 20-minute intervals for an hour to an hour and one-half. If there is an increase in the total white-cell count of 1,000 cells, the test food usually does not cause symptoms and the reaction is termed as a *negative leukopenic index*, to correspond with a negative skin test. If there is a post-ingestive decrease in the total leukocyte count of at least 1,000 cells, the food usually causes trouble and the reaction is termed a *positive leukopenic index*, to correspond with a positive skin test.

The leukocytic responses which do not show a variation in the count of at least 1,000 cells are termed the *indeterminate leukopenic indices*.

with. The findings are presented in the following nine case records.

**Case 2:** A boy, aged 6, was seen because of hay fever and asthma. He had occasional attacks of asthma throughout the year, but his symptoms were continuous during the ragweed season. The skin reactions are given in Chart I. When the patient was first seen (January, 1935) the leukopenic indices were determined for a number of foods; namely, wheat, egg, milk, oranges, potatoes, chicken, pork, peaches and bananas. It was found that oranges, apples, and strawberries produced asthma and hay fever, out of the pollen season, and they were omitted from the diet. His diet was then increased by the addition method only.

When he entered the hay fever season of 1935 there was a slight increase in the nasal symptoms, but no asthma. At that time a repeat of the pollen tests indicated the need for grass and pigweed in his treatment. He was instructed to continue on the diet as he had been. When the added pollen treatments failed to improve his condition, he was placed on a specified diet containing only those foods which produced a post-ingestive leukocytosis. (See Fig. 2, No. 1.)

From September 7 until October 25, when his mother reported, he had been entirely free of hay fever and asthma, while using the specified diet. During this time he was taking 4,000 units of ragweed pollen extract and between 40 and 60 units of grass and pigweed pollen extract at weekly intervals. A comparison of the pollen count of 1935 with 1934, as well as a comparison of his clinical course in the first two weeks of the ragweed season with that during September and October, indicates the efficacy of the prescribed diet. No attempt was made to demonstrate the complicating influence of the various foods, inasmuch as his symptoms in previous seasons and his symptoms from August 15 until September 5 indicated, first, that he was definitely sensitive to pollen, and, second, that the maximum pollen dose without the specified diet was ineffective.

**Case 3:** A woman, aged 34, was referred in July, 1934, for treatment of fall hay fever of seven years' duration. She was skin sensitive to 31 foods, 8 animal danders, and 8 pollens. During the season of 1934 a daily diet and symptom record was kept from July until November.

A detailed analysis was made of the records kept from September 4, to October 4, 1934. Briefly, it was found that her symptoms did not correspond to the daily variation of the pollen concentration in the air, but showed a very definite relation to the ingestion of specific foods. Second, it was noted that more than eighty percent of her symptoms occurred within two hours following the ingestion of these specified foods. Finally, the results of her treatment during this month, even with the occasional errors in her diet, were far superior to those during the period preceding, when little attention was paid to the diet.

In the spring of 1935 this patient was studied by means of the leukopenic index. In August she was placed on a diet consisting of the foods which had produced a post-ingestive leukocytosis. The composite graph of these foods is illustrated in Fig. 2, No. 2. The patient adhered to her diet very strictly this year.

She had more relief in September, 1935, in spite of the exceptionally higher pollen count,

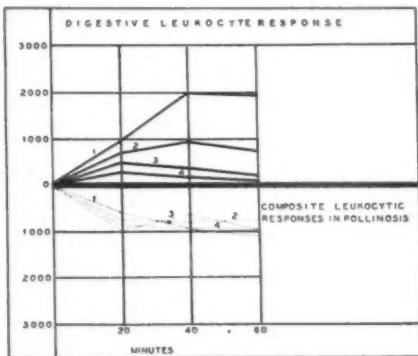


Fig. 2.—Composite leukocytic response in pollinosis. Four patients with ragweed pollinosis were tested in May, 1935 with all foods used in their diet. Those foods producing a post-ingestive leukocytosis were grouped in a composite curve represented by the solid lines. The foods producing a post-ingestive decrease in the white cells are likewise grouped together and represented by the dotted lines.

During the ragweed season of 1935 the diet of these four patients was limited to the foods producing a post-ingestive leukocytosis. It is interesting to note that the clinical effectiveness of this method of treatment; i.e., specific pollen injections and a specified diet, was effective in direct proportion to the post-ingestive increase of the total white-cell count; i.e., patient No. 1 received the greatest benefit and patient No. 4, the least. However, the results in all were distinctly superior to those in patients treated in the regular manner.

than in the corresponding period of 1934. In order to demonstrate the value of the specified diet the patient was brought to the office and a clinical test was made with egg, which produced symptoms. Seven days later the patient tested tomatoes which, like the egg, had been a proved cause of hay fever symptoms of 1934. She again developed symptoms.

The observations which indicate the value of a specified diet for this patient are: First, the results in 1935 were superior to those of 1934, in spite of the higher concentration of pollen; second, even with a maximum pollen dose, symptoms could be produced at will by specific foods, which could be taken, out of the pollen season, without effect; third, in the season of 1934, eighty percent of her symptoms occurred within the two hours following the ingestion of foods which were proved to be a cause of hay fever.

Proof that these foods complicated her hay fever was established by the following: (1)

When the patient was fed these suspected foods, hay fever symptoms were produced, whereas other foods were without clinical effect; (2) there was a post-ingestive drop in the total leukocyte count with all of these foods; (3) the patient contended that her symptoms were always worse when using these foods in her diet.

**Case 4:** A woman, aged 31, subject to fall hay fever for 12 years, was skin sensitive to 31 foods, 8 animal danders, and 20 pollens. This patient was first seen August 21, 1934, and was treated occasionally with more than sixty percent relief of symptoms. Foods eliminated were milk, beef, coffee, tomato, and celery, because they increased her symptoms. In May, 1935, leukopenic indices were taken on 17 foods. In August she was placed on a diet of those foods that had produced a post-ingestive leukocytosis. The composite graph of these indices is illustrated in Fig. 2, No. 3.

She was entirely free of hay fever until the fifth of September, when symptoms occurred following an error in her diet. These cleared up in three days and thereafter the patient continued with what she estimated as more than ninety percent relief throughout the remainder of the season. On September 24, in order to demonstrate the importance of the diet, she ate wheat, milk and beef, which had been denied her. An hour following this meal hay fever symptoms began and continued until one o'clock in the morning before the patient was able to get sufficient relief to sleep. She continued thereafter on her diet, with good results.

This patient is quite intelligent and has been cooperative, therefore considerable credence has been placed in her reports. She has stated that the benefit of the specified diet was worth, not only the necessary inconvenience of such a strict diet, but also the time and trouble of making the tests. The only definite hay fever she had, except the two times when her diet was broken, was running of the nose while handling foolscap paper.

In her case the evidence indicating the value of a specified diet was: *First*, the complete relief of hay fever (as compared to 60 percent relief in 1934), until September fifth, when there was an error in the diet; *second*, the severe attack of hay fever which followed the ingestion of certain foods, which had been incriminated both by previous clinical experience and the leukopenic indices; *third*, the superior relief in the season of 1935, compared with 1934, in spite of the higher pollen concentration.

**Case 5:** A woman, aged 26, was referred because of tree, spring and fall hay fever of two years' duration. The history indicated that this patient had extreme nasal and eye symptoms. She was placed on a specified diet during the grass and ragweed season, consisting of only those foods which gave a

post-ingestive leukocytosis. Her clinical course was satisfactory in these two seasons and very disappointing in the tree season, when the diet was not used. (Fig. 2, No. 4).

During the grass and ragweed seasons she was not only entirely free of eye symptoms, but had practically no nasal reaction, the only symptoms being an occasional morning sneeze with watering of the nose.

In the third week of September the patient was asked to include foods in the diet which had been omitted. At that time she developed hay fever, particularly in the morning when she first got up, and definite post-meal paroxysms.

In this case the factors indicating the importance of foods are: *First*, the practically complete relief of hay fever symptoms during the grass and ragweed seasons, with the elimination of all foods producing a post-ingestive decrease of the leukocytes, as compared to practically no results in the tree season, when these foods were included in the diet; *second*, the recurrence of hay fever symptoms in direct relation to the ingestion of these same foods when taken during September; *third*, the clinical tests made with the individual foods in the office during the course of the hay fever season.

#### The Food Factor in Coseasonal Hay Fever Treatment

Vaughan,<sup>6</sup> in 1932, presented evidence to show that small coseasonal doses were satisfactory. In 1935, I<sup>7</sup> reported the value of the low coseasonal dose in the Kansas City area. It was found that, while the dose was practical, a larger dose was required for relief in Kansas City than in Richmond, the necessary increase being in approximate ratio to the higher pollen counts in Kansas City. In this study it was found that the most frequent demonstrable cause of failure was food sensitivity. For this reason the influence of foods in the coseasonal treatment of hay fever will be considered in some detail.

In view of the extremely heavy pollen concentrations in the 1935 season, it would seem that definite conclusions could be drawn from the results of this year's treatment. Five of the patients who were treated coseasonally are reported herewith.

**Case 1:** A boy, aged 17 years, was first seen September 13, 1935, for asthma in the ragweed season, of two years' duration, and fall hay fever for years. After skin tests were made, the epithelials were eliminated, and his pollen treatments were started. The doses were repeated and increased daily until he was taking 40 units. Thereafter treatment was given every other day, and increased until he was taking 400 units. Leukopenic studies were started at once, and all foods giving a post-ingestive loss of leukocytes were eliminated at once. The foods producing the most adverse reactions were discovered dur-



ing the first two days. These were, pork, tomato, celery, and cabbage.

Forty-eight hours after these foods were eliminated from the diet, the patient was free of asthma and remained free for five days, when he returned home. Three days after he reached home his symptoms re-occurred. On subsequent observation it was found that the pork in baker's bread and fried foods was the cause of symptoms. His symptoms promptly cleared with their elimination.

In his case the importance of the food factors is indicated by the prompt and complete relief of asthma with the avoidance of the foods mentioned, and the recurrence of symptoms when one of these foods (pork) was taken. The circumstances under which he took pork are of great practical importance.

**Case 2:** A woman, aged 36 years, was referred because of hay fever of twelve years' duration and seasonal asthma of three years' duration. There were definite skin reactions to a number of trees, grasses, pigweeds and all of the ragweeds. Her pollen treatments were started on the twenty-first of August and repeated at forty-eight hour intervals. The occurrence of a systemic reaction when she was taking 16 pollen units, and the observation that on some days relief followed an injection, while on other days there was no definite improvement, suggested secondary sensitizations.

In the course of her studies it was found that milk, coffee, string beans, lima beans, potato, sweet potato, beef, tomato, cantaloupe, carrot, banana, orange, lemon, grapefruit, pork, lamb, rooster and chicken meat all produced asthma or hay fever. In every instance these foods produced a post-ingestive decrease in the white blood cells. In her case a prescribed diet was used at once, consisting of wheat, corn, oats, rice, the cabbage family, asparagus, string beans, peas, beets, carrots, celery, fish and lamb. There were three foods in this diet which proved to be a cause of symptoms when first taken and they were omitted. The denied foods have been readmitted to the diet since frost, without causing symptoms.

In this case the tolerated foods did not produce a post-ingestive decrease in the white blood cells, whereas all foods that increased her symptoms reduced the leukocyte count.

**Case 3:** A woman, aged 37 years, was referred because of hay fever, on September 17, 1935. She had been subject to seasonal hay fever and asthma for six years. The patient knew that she was unable to use wheat and botanically related foods during the hay fever season. Following skin testing she was placed on a diet of specified foods. By clinical and laboratory tests it was demonstrated that wheat and the related foods would produce hay fever, asthma and urinary tenesmus. Coconut, cranberries, apple, pear, and nutmeg, all caused hay fever. The grape family produced gastro-intestinal symptoms only. Plum, pistachio nuts, lettuce and lamb

produced asthma. Here again, the leukopenic studies supported clinical observations.

**Case 4:** A man, aged 28 years, was seen August 23, 1935, because of fall hay fever of five years' duration. There were reactions to 30 foods, 6 animal danders and 14 pollens, including ragweed, pigweed and grass.

In his case coseasonal hay fever therapy gave definite improvement in the itching of the eyes, but practically no relief of the nasal symptoms. At that time a clinical test was made with wheat and egg, which had been denied him because of skin reactions. They were replaced in his diet, since they did not influence his symptoms.

At that time leukopenic studies were made, since there had been no definite improvement, except of the eye symptoms. The first test was made with milk. The leukopenic index was positive. Following the elimination of milk, beef and foods containing these products, there was immediate and practically complete relief of hay fever until the end of the season. His symptoms, following avoidance of milk, were confined to a few morning sneezes.

**Case 5:** A woman, aged 39 years, was first seen September 17, 1934, for fall hay fever of ten years' duration. On testing there were reactions to 8 foods, 7 animal danders, and 14 pollens. Treatment was necessary with ragweed, pigweed, and grass extracts.

It was proved that wheat caused violent hay fever symptoms and the cereals were, therefore, omitted. Her results with coseasonal treatment were exceptionally good. In the spring of 1935 it was possible to make leukopenic studies only for wheat and egg. The cereals and egg were omitted during the ragweed season. At that time the patient was taking the maximum pollen dose (4,000 units) at weekly intervals. During the first week of September 1935, she had severe hay fever symptoms and reported to the office for observation. Leukopenic studies were made for the foods that she was using, and it was found that milk, pork, beans and peaches had to be eliminated. Thereafter her progress was satisfactory.

My object in reporting this case is to emphasize the fact that the number of foods which may be complicating factors in the treatment of seasonal hay fever, in some cases and possibly in all, is the result of total doses. I have observed four patients in whom foods were of no significance, either in coseasonal or preseasonal treatment, during the seasons of 1933 and 1934; but in all of these patients foods became a definite complicating factor in the heavy pollen season of 1935.

These findings suggest that the incidence of secondary food factors will be greater in those areas with heavier pollen concentrations and when the pollen counts are the highest.

#### Summary and Conclusions

In 25 unselected patients subject to seasonal hay fever, 12 of whom also had sea-



sonal asthma, there were 139 instances of food sensitization which were found to modify the clinical course of symptoms and adversely affect specific pollen therapy.

Six (6) of these patients have had a complete study of their diet by means of the leukopenic index and have used a *prescribed diet* during the hay fever season (5 of these cases have been reported in this paper). The results have been more satisfactory than in patients treated in the conventional manner. These results are more striking in view of the greater amount of pollen in the air in 1935, as compared to 1934. The leukopenic index is a distinct aid in the management of these cases inasmuch as it is the only means by which one can determine, preseasonally, the *probable* effect of the food during the hay fever season.

This test is not a final one, but when used with due respect to the botanical classification of foods, and in the light of known features of food sensitivity, one is able to devise a diet which will not complicate the treatment of seasonal hay fever. It is quite likely that one will deny the patient some foods which could be tolerated, but this is more than compensated for by the fact that he is able to eliminate, with a high degree of accuracy, those foods which are apt to cause symptoms.

Whether one determines the proper diet by the leukopenic indices, either preseasonally or coseasonally, or depends entirely upon clinical observation in the pollen season, the specified diet is superior to the conventional practice of denying the patient foods on the basis of skin tests alone. Of the 139 etiologic foods reported here, only 57 gave skin reactions. This is an accuracy of only 41 percent.

The leukopenic index has an approximate accuracy of 84 percent, but it cannot be used to determine the *degree* of a food complication. More severe hay fever symptoms have sometimes been observed from a food producing a loss of 300 cells than from one producing a loss of 3,000.

The only means by which one can prove that a food is a complicating factor in seasonal hay fever is by means of the clinical test. In no instance have we considered a food to be a cause of hay fever until the patient was satisfied that such was the case. We have yet to find a single instance in which these clinical observations were not supported by the leukopenic index.

In only one patient was there sensitivity to a primary pollen (ragweed) and to no other food or inhalant as far as we could demonstrate. For three years this patient has had as near complete relief of hay fever as it would seem possible to obtain. In our experience only about 3 percent of the seasonal hay fever patients are clinically sensitive to pollen only. The particularly brilliant results in the treatment of these patients emphasize, by contrast, the factor of secondary sensitizations.

The problem of food sensitivity in seasonal hay fever is a very definite one, but also a very difficult one to evaluate. It cannot be summarized; it must be individualized. Nor can one allow its importance to minimize careful study of all other secondary sensitizations.

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### HIDDEN TAXES

Fifty-six percent of all taxes raised to run the Federal government comes from hidden taxes. You have probably been kidding yourself with the thought that you never paid any taxes, but the truth is, it is you who have been paying them right along—to the tune of fifty-six percent of the Federal total—while the bird in the limousine has been paying the other 44 percent. In paying his 44 percent of the tax bill, the bird in the limousine is taxed to his ears with direct taxes, such as the Federal income taxes, corporation income taxes, taxes on dividends and a dozen others, which come to him in the mail in the form of tax bills. This 44 percent of the tax bill is paid by less than 5 percent of the people. But the other 56 percent is paid by all the people, including the bird in the limousine, but including you too—and you pay at the same rates as the bird in the limousine.—NATIONAL ECONOMY LEAGUE.

# Controlling Hay Fever

By F. A. Wier, M.D., Racine, Wis.

**A**NY method of treating hay fever that ignores the intranasal abnormalities is unscientific. How any physician can go on giving injections year after year without results, and never make an intranasal examination passes understanding. If and when results are obtained by such methods, it will be in cases where the intranasal deformity is not pronounced and the hay fever symptoms are mild.

## Nasal Factors

The hills and valleys in a bad nose are an ideal resting place for the pollens. A good nose is like a double-barreled shotgun. It has two straight, clean barrels and a straight septum and will not have hay fever. Nature, with her pint of alkaline nasal douche every twenty-four hours, made up of tears and secretions from the sinuses, will keep a normal nose clean and free of pollens.

My first real cure of hay fever occurred fifteen years ago—and was purely accidental!

Mrs. B. consulted me in March for difficult breathing and headaches. I removed two very large middle turbinates and six polypi from her nose. Her headaches ceased at once. She had suffered with hay fever from childhood and had gone north during the season for the past twenty-five years. This year (1921), due to financial difficulties, she was unable to go and was much worried over the idea of spending the summer in Racine. She did not have a sign of hay fever and has not had a touch of it to this day. Other cases began to report similar results, and at present I have a long list of case histories, which space forbids recording at this time. I contributed an article to this Journal in August, 1923 (page 574) on the pathology and treatment of hay fever. The surgical treatment remains the same, but there are some changes in the medical treatment, due to the development of newer remedies.

The facts set forth here are the result of fifteen years of study, and I am sure I am on the right track, though I do not claim to have a cure-all. The doctor who is interested enough in this subject to learn how to examine a nose (he does not have to be a rhinologist) and to pack the nose with medicine on cotton, over and under the middle turbinate, to shrink the tissues and allow the sinuses to empty themselves and wash the pollens out of the nose, along with other time-tried treatment, will be in a position to give his patients much and appreciated relief. When he sees a nose packed full of polypi, or a badly deflected septum, or a middle turbinate as big as one's thumb, or all of these

conditions present in one patient, he would surely recommend their removal, even if the patient did not have hay fever.

## The Head Mirror

All physicians should know how to use a head mirror and should use it. Some seem to think this technic is difficult to learn; and it is, on the patient, but here is the way to do it.

Take a large spool and color it black, inside and out; paste a piece of red paper over one hole; suspend or fix the spool about one foot in front of where the examiner's head will be, either sitting or standing, and on a line with the right eye.

All the apparatus one needs is a good nasal speculum, a 4-inch head mirror with a 12-mm. sight hole and 10-inch focus, and a 60-watt oculist's lamp, which one can buy from any surgical instrument dealer. Those who are presbyopic should wear reading glasses or attach a spring clamp to the mirror which will hold the proper lens.

Now all one has to do is practice throwing the light into the open end of the spool until one can see the red reflex from the red paper. After one can throw the light in the proper place instantly, one is ready to examine the nose, ear, and throat—in fact, anything from the ruby lips to the puckered anus. And after one has seen some of the pathologic conditions in the nose, one will never be satisfied to give an injection and wait for some magic cure of hay fever. The ultimate cure of that condition will come when we are enlightened enough to start a national movement to remove the cause.

## Reducing Pollens

The remedy is simple. Ragweed is the offender in 98 percent of cases. It grows along the highways, inside the fences of farms, and in waste places. This land is uncultivated and the ragweed runs every other form of vegetation out. But we have a natural enemy of ragweed and Canadian thistle in white clover.

White clover will produce three crops a year and, if sowed along highways and waste places, and cut regularly, it will be a valuable crop and put the ragweed out of business, to say nothing of reclaiming the land for useful purposes. But this plan must be carried out simultaneously in all of the ragweed-producing states.

Our ideas of the distance pollen will travel will have to be revised. Scheppegrell, in his book on hay fever and asthma, states that pollens were collected at an altitude of

2,350 feet, and he thinks that they do not travel over 15 miles. The dust storms in the Southwest proved that dust could travel from the panhandle to Chicago, and, of course, the pollens could ride along with the dust. Aviators have found plant disease spores at an altitude of 18,000 feet.

Diseased plants are able to infect healthy crops hundreds of miles away. The U. S. Government is spending millions of dollars on projects of various kinds. Why not spend some money for the eradication of the ragweed? There is already a good setup in the CCC, and we will probably have a new AAA of some kind. Why not pay farmers to plow up their ragweed-producing land and sow it with white clover? Make a Government appropriation to the State and County highway commissions to plow up the roadsides, from the road to the fences, and sow it with white clover. This would eradicate the commonest source of ragweed, and also beautify the highway.

If this project were made permanent, it would only be a short time until the hay fever problem would be solved. Other pollens that are alleged to cause hay fever are so insignificant that they may be ignored, for the time being.

Another enemy of the ragweed is the pheasant. The state conservation department examined the contents of one hundred crops of pheasants, which showed that they preferred ragweed seeds above all other foods, even domestic grains. They also like a few bugs and grasshoppers for dessert. Many crops contained between 1,000 and 4,000 ragweed seeds.

The Government can do the farmer a good turn by subsidizing him to raise white clover and pheasants. In this state we have an open season of four days for pheasant shooting, and one has to pay the farmer who owns the game preserve one dollar per man for a permit to hunt on his land. So if Uncle Sam would go into partnership with the farmer in the pheasant business, the farmer could make an honest dollar on the side. There should be some regulation, however. I heard of one farmer who had three pheasants and sold eight permits.

I have never seen a patient with hay fever before August. Of course, this only applies in Wisconsin. When all of our homes, factories, and office buildings are air-conditioned, we may expect a drop in the percentage of hay fever cases. Our modernistic buildings of the future will have no windows, be air-conditioned, lighted by artificial sunlight, and will admit no pollens.

When we consider the fact that several hundred thousands of our people are so incapacitated every year from this scourge that their income is greatly reduced or wiped

out entirely, to say nothing of the great suffering and unhappiness this annual torment produces, isn't it about time that the state and federal government took a hand in this warfare to eradicate the ragweed? After all, we are the people and the government, and should receive some attention. And the remedy is so simple—sow white clover, cut it three times a year, and the ragweed will never get a chance to bloom and scatter its pestilential seeds. In a short time it will die out completely, and this country will be free forever of hay fever.

Until this happy time arrives, let us try to formulate some standard of treatment, instead of jumping from one thing to another every day, with no sense of judgment or direction.

Congress has appropriated \$14,000,000 for the eradication of scabies in sheep and cattle, and \$10,000,000 for the promotion of general public health work, according to the report of the American Public Health Association.

The eradication of hay fever ought to be just as important as curing the itch in sheep. Every hay fever victim has a cash value to the Government as a producer of income tax, and it should be to the interest of the Government to keep him working. \$14,000,000 a year, for two or three years, would eradicate all of the ragweed in the United States, furnish needed cash for the farmers, as well as a valuable crop of white clover, and remove the principal cause of hay fever. A little propaganda by the American Medical Association might easily bring this ideal state of affairs to pass.

#### Nasal Examination

While waiting for this to take place, this is what I do:

On August 16 the first patient, Mrs. H. comes into the office, says she nearly died last night, and wants her hay fever cured instantaneously. I try to calm her down a little while I ease her into the examining chair, don my head mirror and, with the aid of a nasal speculum, attempt to examine the nasal chambers.

The first structure that comes into view is a large, pale, boggy lower turbinate, that is pressed tight against the septum. It pits on pressure with a silver probe and has a waterlogged appearance, in contradistinction to the picture of an acute cold or an infection, in which case the turbinate would be cherry-red, swollen, and the membrane would look tight.

I shrink the turbinate, by packing it with one tablet (1.0 mg.) of epinephrin dissolved in 2 cc. of a 3-percent solution of ephedrine. I dampen thin pledgets of cotton about 1 inch by 2 inches and pack them evenly over as much of the turbinate as possible; leave these in ten minutes; then remove them and inspect the nostril. The lower turbinate will

be shrunk tight to the lateral wall, so that one can see between it and the septum. Now I inspect the area of the middle turbinate. If this is swollen tight against the septum, I pack this the same as the lower turbinate and leave the packing in place for ten minutes more, after which I am ready to make a real examination.

By this time the lower, middle, and superior turbinates will be thoroughly shrunk. I first inspect the septum on both sides, see if it is straight or deflected to one side or has a letter-S twist, which may block up both passages and obstruct the view of the middle turbinate; or the septum may be fairly straight except at the inferior attachment of the cartilage to the vomer. Here one frequently finds an acute or right-angle twist of the cartilage and vomer—a shelf pressing against the lateral wall; or the septum may be more or less straight except for spurs of various sizes and locations, projecting towards the lateral wall and sometimes into it. Some of these may be knife-edge sharp and the mucous membrane worn so thin from pressure as to bleed on the slightest touch or blowing the nose. These sharp spurs add greatly to the inherent difficulties of a septum operation.

Next I inspect the middle turbinates. If they are normal, they will be small and hang down straight in the passage, but if, after being shrunk as much as possible, they are still large and press against the septum they are hypertrophied, and if there is pus flowing from over or under the turbinate, there is frontal sinus or ethmoid disease to deal with. If the deflection of the septum is extreme on one side only, one will find an enormously enlarged turbinate on the concave side, while on the convex side the turbinate will be very small, atrophied from pressure by the septum. In addition to the abnormal condition of the turbinates, one may find from three to six polypi in one or both nostrils; or all of these conditions may be present in one patient. The history may reveal an injury to the nose on one or more occasions, and this may be the underlying cause of all the nasal abnormality. All findings should be recorded.

The patient thinks that all his trouble is due to "catarrh." The drug stores are full of "squirts" for "catarrh," and sometimes the family doctor is inveigled into prescribing some proprietary "squirt," in the vain hope of curing deformities requiring surgery. Hay fever and a normal nose are incompatible.

But no matter what condition the patient's nose is in, this is not the time to cure her hay fever by surgical methods. We must explain to her that all we can do now is to give her relief from the most distressing symptoms and carry her through the season

as comfortably as possible, and she must return any time between November and June, for removal of the diseased conditions in her nose, which harbor the pollens and make hay fever possible.

During the hay fever season, the main thing is to keep the nostrils open and clean. This is easily accomplished by the use of epinephrin and ephedrine solution. I use Suprarenin (Winthrop), which has the same properties as adrenalin, except the secondary hyperemia, which makes it superior to adrenalin for that reason. It comes in one-ounce bottles of 1:1,000 solution, and in tablets of 0.001 Gm. (1/65 grain). The tablets are preferred for prescribing or dispensing. One tablet to 1 cc. of distilled water makes a 1:1,000 solution. However, this is too strong for prolonged use. The following prescription should be dispensed to the patient:

R

Tab Suprarenin	No. 1
Ephedrine, 3-percent sol.	3 ss.
M. et Sig:—Spray the nostrils every two hours, using a P.D. Glaseptic nebulizer.	

Tell the patient to return the next day and bring the bottle. Examine the nose and note the amount of ischemia, and whether the patient is breathing easily and the nose is draining freely. If not, add another tablet of Suprarenin to the bottle of ephedrine solution. In a few days one can determine the minimum strength of solution that will keep the patient comfortable. I tell the patient to call every other day, so that I can keep watch of the intranasal condition and show him that I am taking an interest in his case.

After each shrinking of the tissues, the nose should be irrigated, to remove the pollens and keep the nose clean. This alone will largely minimize the attack of hay fever, but it should be done very thoroughly, and one of the best and easiest methods for the patient is with a Nichols nasal syphon. Use one "normal" salt tablet in a pint of warm water. This should be followed with a bland oil spray, with or without ephedrine. Internally the patient should take one "A.B.D." capsule and dicalcium phosphate, three times a day. Cod-liver oil has a very favorable influence on hay fever and prevents the debility that always follows in the wake of the attack. Dicalcium phosphate enhances the value of the cod-liver oil. This combination has a very salutary influence on hay fever.

#### Ionization

A couple of months after the frosts have put an end to the seasonal hay fever, and the nasal abnormalities have been corrected, a very helpful treatment is ionization, either by the Warwick or Cottle method. Dr. Cottle's method is the easiest to apply, as it



employs a 2-percent zinc sulphate jelly, injected into the nose with a syringe.

Dr. Cottle's method (*Archives of Physical Therapy, X-Ray, Radium*, July, 1935) is as follows:

A 2-percent zinc sulphate solution in tragacanth, fluid enough to be injected with a syringe, requires no local anesthetic. The nozzle of the syringe filled with jelly is inserted into the vestibule, and the jelly is directed upwards and backwards, until the nasal chamber is completely filled. A small cork is then fitted into the vestibule and through the center of the cork a zinc wire is passed and contact made with the jelly. The other end of the wire is connected to the positive pole of a galvanic apparatus. The negative electrode is applied to the forearm. When both electrodes are in place, the current is turned on for from one to two minutes, at 3 milliamperes, and then increased to 8 to 15 milliamperes for from five to twenty minutes.

After the completion of the treatment, the current is slowly turned off, to avoid shocks to the patient. After the treatment, by blowing the nose, the patient expels the jelly. This treatment is not painful and is well suited to children.

In young children, surgery is contraindicated, except for the removal of adenoids and tonsils, and in some cases where the middle turbinates are greatly congested from being in an abnormal position. For some reason, possibly an injury, turbinates grow toward the septum, press tightly against it and become very large, due to the constant congestion caused by the interference with venous circulation. This condition is easily and painlessly remedied, as follows:

With a cotton-tipped applicator, moistened with a two-percent Butyn solution, paint the turbinate all over, and especially the superior attachments; wait a few minutes and repeat; wait five minutes more, and then, with a blunt elevator, gently press the turbinate towards the lateral wall until you hear and feel the bone crack. This procedure fractures the bone at its superior attachments, where it is very thin, and allows the turbinate to hang vertically in the chamber. This simple and harmless operation relieves nasal stenosis to an amazing extent, in both children and adults, and frequently this is all the treatment they will ever need. It relieves the rigidity and restores normal circulation. In about one month the turbinate will have shrunk to about one-half its former size, giving plenty of space for respiration and drainage.

In a child with the above condition, and also a victim of hay fever, one may now give one ionization treatment and quite positively assure the parents that the child will not suffer any more from hay fever.

Ionization is an even more effective treatment for hay fever in children than in adults. Thousands of children suffer fractures of the nose and the parents do not even suspect it. A nosebleed is so common that they seldom pay any attention to it. In young children the triangular cartilage is so soft and flexible that a deflection does not bother them much until the age of puberty, when the nose takes on a rapidly increased development. From that time on the deflection may increase until, at the age of twenty, the nose is badly blocked. It requires about ten years to develop a bad nose.

Treating children requires great tact, kindness and patience, but all of this may be of no avail if one allows the mother to remain in the room. Mothers have a bad habit of nagging and arguing with the child to induce it to submit to treatment. They only succeed in making the child nervous and antagonistic, while if they are excluded from the private room one gets along without the least bit of trouble.

About one month before the seasonal hay fever attack, the patient should receive another ionization treatment. When zinc is deposited in the mucous membrane, it seems to have the power of paralyzing the nerve ends so that they do not react to the irritating properties of the pollens. The action is purely chemical.

Those who cannot afford to buy an ionization outfit and learn the technic, can get practically the same effect by painting the membrane with trichloroacetic acid. I use it frequently to control small bleeding spots on the septum, and I have never noticed any bad after-effects on the membrane. It is much better than the electro-cautery for the purpose; but I do not advise anyone without rhinologic technic to use this or the ionization treatment.

Unfortunately the first man to buy an ionization outfit is often one who never saw the inside of a nose. He is likely to be the same fellow who bought the first electrocoagulation outfit, although he never removed tonsils surgically—and he is probably still working on his first pair of tonsils. *One must have technic!*

There are certain areas in the nose that are naturally hypersensitive, and these should be carefully considered in cauterization, either with the galvano-cautery or trichloroacetic acid, also in applying cocaine previous to nasal operations.

These areas are the anterior part of the septum, beginning opposite the superior turbinate at the *rami nasalis anteriores mediales* nerve, which passes down on the septum close to the roof, to within about one inch of the tip of the nose. Draw a line, either with the cautery or acid, along the course of



this nerve, about  $\frac{1}{4}$  inch wide or less, being sure of the anatomy.

Next take the nasopalatine nerve, which passes down the posterior border of the septum along the line of the junction of the perpendicular plate of the ethmoid and triangular cartilage and the vomer, to end in the incisive canal. To cauterize this nerve area, draw a line on the septum, from just under the posterior end of the middle turbinate to the maxillary spine. Next draw a line on the anterior margin of the middle turbinate; and finally on the superior margin of the inferior turbinate.

This treatment is only to be employed about a month previous to the expected attack, and preferably following the indicated surgical

treatment to put the nose in as nearly a normal condition as possible. The ionization or cauterization of a nose full of polypi and various other pathologic conditions is rather humorous, if not disastrous.

Any time between November 1 and June 1, remove the nasal pathoses. Give the mucous membrane a little time to get back to normal. Then give an ionization treatment.

During the attack, a useful little appliance for the patient to use, between treatments or when it is not convenient to take one, is the *Benzedrine Inhaler*, which will give some measure of relief by shrinking the tissues to some extent.

313 Sixth Street.

## Ionization for Hay Fever

By Burton Haseltine, M.D., F.A.C.S., Chicago

IT is regrettable that published discussions on ionization have developed into a sort of controversy among the various investigators, with so many tabulated reports, both pro and con, showing strong evidences of wishful thinking. The subject is one which peculiarly lends itself to this sort of investigation, because no statistics of hay fever ever can be compiled with any convincing value to discerning critics who know the subject thoroughly.

Especially deplorable is the fact that most investigators feel compelled to report their results in terms of percentages, being unmindful of the fact that precise reports of any clinical results in percentage terms is an impossibility. Mortality reports, yes; for if a patient dies, he is, without doubt, one hundred percent dead. But any ante-mortem report that he is fifty or ninety percent dead would have exactly the same information value as the report that he is fifty or ninety percent cured. A clinical report, to have information value, must state, with some accuracy of detail, what changes have been produced in the patient's condition or symptoms by the treatment applied. No statement in percentage terms can convey this information. Indeed the results of actual attempts have shown that efforts of different observers to report on the same cases, in percentage terms, have generally shown such wide variation as to have little evidential value.

Recent reports on nasal ionization have varied from one which gives it an eighty-percent value to one which says it has no value at all. The practitioner who accepts either of these reports as settling the question will be seriously misled. Happily this Hobson's choice is not necessary.

Sufficient time has now elapsed and sufficient experience accumulated to prove, beyond question, that there is a place for ionization in treating the asthma-hay fever syndrome and that, without it, our ability to meet the problem would be lessened. Furthermore, it is now possible to say with a high degree of definiteness, when and how the procedure should be employed. That it should be used only by those rhinologically qualified is, of course, obvious. Less obvious but equally important is the fact that, added to the usual rhinologic qualification must be an understanding of the basic factors underlying the entire condition, of which the hay fever reaction is only one manifestation.

### Study the Patient

A thorough knowledge of this syndrome, especially of its causative factors, is essential to the successful treatment of any of its manifestations. Any treatment directed to a single symptom and in disregard of its basic causes, is generally futile and may be dangerous. Fortunately such symptomatic treatment is no longer necessary. The pioneer work of James Adam, of Glasgow, on the toxic basis of asthma, supported by the later work of Cameron, of London, Phillips, of Miami, and our own group in Chicago, has established this point, both clinically and in the research laboratory. A recent expression of Garretson (*Allergy: A Neuroendocrine Interpretation. Medical Record, March 20, 1935*) accurately reflects the present view of the best informed clinicians. Doctor Garretson says: "The victim of asthma or any other allergic manifestation is always a toxic individual—one who is being poisoned by either bacterial or chemical toxins, or both."

It becomes clear, from a recognition of these facts, that to subject a patient to nasal ionization merely because he has hay fever, and with only the information derived from nasal examination, is poor practice. But more than this, there is a very positive value to be obtained through a general study of the patient. The clinician properly trained to meet the asthma-hay fever problem can, by general examination, both aid in selecting cases suitable for ionization and add to the effectiveness of the treatment when given. Aside from all local treatment there is much to do for the hay fever patient to diminish his abnormal reactions, and he should not be denied this help, whether or not ionization is employed.

Indeed it is not too much to say that, with the combined use of general and local measures now available, the hay fever patient is no longer the bugbear whom we used to dread to see, but has become a welcome patient because of the certainty with which we can promise him relief. Especially is this true of the patients in early life showing asthmatic trends, since we can now protect them from the more or less continuous invalidism which would otherwise be their lot. This subject is covered in detail in the "Symposium on Asthma," published by the *Medical Press and Circular*, of London, in May, 1935, and issued in brochure form by the Chicago Medical Book Company, Chicago.

#### Contraindications

The rhinologic contraindications for ionization I would list under three heads: (1) mechanical obstruction; (2) polyposis; and (3) chronic infection.

The first is obvious and is mentioned by all writers. Fuller experience leads me to urge more strongly that no ionization be attempted in a nose that clearly needs a septum resection or other correction of a mechanical deformity. These patients often make their first appeal while in a severe hay fever attack and the physician is terribly "on the spot" in being compelled to postpone for a year the relief which they perhaps know others have obtained. But an operation during the attack is entirely inadmissible, and ionization without it will almost certainly be disappointing. In this dilemma we must use all known measures to ameliorate the patient's immediate distress and advise him as to the correct program of real remedial measures to be carried out later. One resource never to be forgotten is the pollen-free room, now made possible by effective air filter devices at very moderate expense. These may be installed at any time, but preferably before the pollen season begins.

The second contraindication, polyposis, is, I believe, equally important. There is wide difference of opinion on this point, but it is

probably a good rule to avoid ionization in polyp cases, at least until surgical removal of polyps has been done as completely as possible.

The third contraindication, chronic infection, may be considered a personal opinion. It is true that ionization was first suggested as a treatment for infection and that it has some value as such, but it is slight in comparison with other measures now available. In these mixed cases the infection should be cleared up as a first step, for two reasons: (1) Unloading infection will improve the systemic condition and lessen the local reaction so that, in some cases, ionization will be unnecessary; (2) when it is necessary the effect will be greatly enhanced.

The technic of ionization has been described in many articles, with only slight variations in detail. Philip Franklin, of London, to whom we are indebted for the first suggestion, still prefers, where possible, a series of mild, pre-seasonal treatments. Most American rhinologists follow Warwick's plan of giving one complete treatment either pre-seasonally or during the attack. I have not greatly modified my technic, as described in the *Eye, Ear, Nose and Throat Monthly* for August, 1934, except to add a few refinements that greatly lessen the patient's discomfort.

Whatever the technic employed, I do not regard nasal ionization as a suitable office procedure. In children, a brief general anesthesia is called for; while in adults suitable tranquilization, both before and after the ionization, should be employed. It is comparable, I think, to one of the very minor operations requiring local anesthesia.

I have had no experience with any complications following ionization and the few such cases reported I believe must have been due to some oversight in selection or some error in technic. But it should always be remembered that the hay fever patient is a candidate for bronchospasm, even if the history contains no record of a recognized attack. To subject such a patient to nasal ionization without study of and attention to the underlying conditions is, I repeat, unwise and possibly dangerous.

#### Symptoms and Treatment

It seems reasonable to regard the hay fever symptoms (swelling, hypersecretion, etc.) as, to some extent, a protective reaction. These patients are systemically, as well as locally, hypersensitive, and these air-borne irritants are, to them, constitutional as well as local poisons. So true is this that, when the dose is overwhelming, they are often thrown into a condition resembling anaphylactic shock.

The first reaction renders the nose a more effective filter and, to some extent, lessens the load of toxic material carried by inspira-

tion to the deeper structures. If the load continues, this defense in time gives way and the result is shown by general symptoms, including bronchospasm. This is strikingly illustrated by the record of several cases reported in the literature, in which, following ionization, there was complete absence of local symptoms, even in a pollen-laden atmosphere, but when the pollen content became extreme, the patients went into severe bronchospasm, with evidence of profound systemic intoxication. Examination of these patients showed the nasal passages to be abnormally open, and it is reasonable to suppose that the lungs and bronchi received a more sudden and more massive dose of toxic material than they would have received, had the nose been untreated.

Clearly we have a situation here that is not simple and one that cannot be met by routine procedures. It is, indeed, one routine procedure; namely, the attempt to immunize by so-called antigen treatments, that produces a serious complication in many of these cases. Patients who have been subjected to such an addition to their already heavy toxic load are, as a rule, more difficult to relieve than those who have not. It is important to know, in each case, whether such attempts at immunization have been made and whether shock reactions have occurred, because there is sometimes a factor of heart strain in such patients that cannot safely be ignored. This point should be especially stressed because, under high-pressure salesmanship, such treatment is becoming more common in inexperienced hands and such unhappy results more frequent.

The introduction of ionization has not altered the fact that the successful treatment of these patients requires the combined efforts of an internist and a rhinologist, each of whom should have some special training in this field.

#### Personal Experience

A brief report of my personal experience with ionization during the season of 1935, although small compared to that of previous years, will be of interest because it strikingly illustrates the points here discussed.

Because no institutional work was done this year, my observation was limited to the office patients who applied for ionization treatment for hay fever. The number was 18. Four (4) of these cases were refused the treatment because of local conditions which, in my opinion, clearly rendered them unsuitable for it; 2 were advised against the

treatment because of chronic nasal infection, which led me to believe it would be ineffective, and because they were in severe hay fever attacks when seen; but because both patients and physicians strongly urged that the treatment be tried, I consented, against my better judgment. These 2 cases are highly instructive, since they received no benefit whatever from the ionization. Both have since been given proper treatment for the infection and are now in normal condition. It will be most interesting to observe whether they show hay fever reactions during the next pollen season, and in case they do, whether a second ionization will be more successful.

The other 12 cases were given ionization under proper conditions, with confidence of a good result, and in each case this was obtained. Every one of these has, at some time subsequent to the season, expressed extreme satisfaction that the treatment was given, none of them having any symptoms except slight sneezing spells which subsided without treatment. In view of the fact that the hay fever season was one of unusual severity and that the atmospheric pollen count registered higher than ever before, these results are of special interest.

An attempt to tabulate the results in these few cases will show how useless and misleading a percentage report might be. The two cases unwisely treated would be listed as showing about 15 percent total failure, while the other four, in less experienced hands, would perhaps have been subjected to treatment, with presumably poor results. We would thus have had a reported 33 percent of failures, which would have been a most erroneous estimate of the value of the treatment, when properly applied. On the other hand, to list the successful cases as one hundred percent cures would have been equally misleading. No hay fever patient, by any method or combination of treatments, is so changed that he can live in bad hay fever localities in the same comfort as the normal individual. At the peak of the atmospheric pollen load, in bad seasons, he will have irritating reminders, and he should not deliberately expose himself to such irritation.

While we cannot, therefore, promise these patients results stated in mathematical percentages, we can give them reasonable assurance of continuing their usual activities during the season, with symptoms that are practically negligible.

122 South Michigan Avenue.

#### IMPORTANCE OF GREAT THINGS

*The most essential elements of real and integral culture are knowledge of the Great Unities and familiarity with the Great Things, such as great facts of history and great masterpieces in every field of art.—U. B. Papers.*

# The Clinical Use of Suprarenal Concentrate

## (A Preliminary Report)

By C. S. Bucher, M.D., Champaign, Ill.

**T**HIS preliminary report is intended to set forth the clinical observations on a small number of cases on whom a new product has been tried.

Suprarenal concentrate is derived from the suprarenal glands, from which nearly all the epinephrin has been removed. It is a grayish powder, with the usual odor of powdered endocrine products, at present dispensed in 2-grain capsules.

The physiologic action is not well understood at present. It is known to have an effect on the water-balance of the body, by reducing excessive fluids in the tissues. When given in therapeutic doses, edema is reduced, and dryness of the skin and mucosa of the nasal passages, and decreased lacrimation, result.

During the 1935 hay fever season, 7 patients having hay fever of varied severity received suprarenal concentrate in conjunction with other treatment. Of this number, 4 were college graduates; 1 a high school graduate; and 2 had less than an eighth-grade education. The first 5 mentioned cooperated very satisfactorily, while cooperation was nil in the remaining 2 patients.

### Case Reports—Hay Fever

**Case 1.**—O. M., farmer, age 23, who had hay fever of medium severity, received 4 grains of suprarenal concentrate four times a day. In 48 hours there was a decrease in lacrimation and nasal secretion, and less itching and burning of the eyes and nasal mucosa. He continued working on the farm with little disturbance from hay fever. While putting up bean hay he had some symptoms, but became symptom-free almost immediately when not in direct contact with the hay. The results were very pleasing to him.

**Case 2.**—S. D., male, bookkeeper, had hay fever of medium severity. After receiving suprarenal concentrate he noticed a decrease in lacrimation and nasal secretion, with a corresponding decrease in the other symptoms.

**Case 3.**—H. K. M., had hay fever of medium severity. I administered suprarenal concentrate, 4 grains four times a day for four days. He noticed a decrease in the discharge from the eyes and nose, had less sneezing, and felt much better. He discontinued the suprarenal concentrate for two days, and the secretion and sneezing increased; resumed treatment, and experienced partial relief of symptoms.

**Case 4.**—R. B., a female stenographer and a severe sufferer from autumnal hay fever, noticed a very pleasing relief of symptoms—decreased lacrimation and nasal secretion and less irritation—and believes that suprarenal concentrate aided materially in giving this symptomatic relief.

**Case 5.**—B. B., a sister to R. B., reports very little relief, if any, from suprarenal concentrate.

The five foregoing patients possess unusual intelligence, and their cooperation was excellent. The dose of 4 grains, four times a day, was the same in all, excepting in the intermission mentioned.

**Case 6.**—E. S., has very severe hay fever symptoms during August and September; did not follow instructions; took suprarenal concentrate irregularly and for too short a time to be of clinical significance.

### Edema

**Case 7.**—Mrs. L. J.; family history essentially negative; has one child, age 14, delivered by cesarean operation because of a hypertrophied and elongated cervix; has had the usual diseases of childhood.

For the past twenty-one years her ankles and legs have been edematous up to her knees, and she complains of a sensation of stuffiness or difficulty in breathing. At the time of the cesarean operation, no unusual amount of fluid was noticed in the abdominal wall or peritoneal cavity.

**Present examination,** essentially negative, with the exception of a slight puffiness of the lower eyelids; color of the skin, dull; marked edema of the lower extremities below the knees, with asymmetry of the ankles; some general edema, but not marked.

On Aug. 24, 1935, the following treatment was instituted: No change in diet or mode of living and no medications except suprarenal concentrate, 4 grains, four times a day.

On Aug. 31, she reported that she noticed some pain in her upper lumbar region, beginning a few hours after starting the medication and lasting for several days, associated with loss of ambition. Suprarenal concentrate, in the same doses, was continued from August 24 to September 3, inclusive, and at the latter date the edema of her legs and ankles had nearly disappeared; their size and shape were nearly normal; general edema was absent and she stated: "I have more room to breathe



and feel much better." At this time the concentrate was discontinued.

On Sept. 11, her ankles and legs were again edematous, which she attributed to her having gone through a normal menstruation at her regular interval, which had ended two days previously; since when the size of her ankles had decreased somewhat. At this time she was instructed to discontinue the suprarenal concentrate for three days longer, and, if, at that time, her ankles did not continue to reduce in size she should repeat the concentrate as before.

On Sept. 20, she again presented herself, stating that she begun taking the capsules (suprarenal concentrate) as before on the 16th. At this time (20th), her ankles and legs were markedly edematous.

On Sept. 27, there was less edema of the ankles and legs than one week previously.

On Oct. 2, she had more ambition and could move about much easier. Her ankles and legs had usually become very large at time of menstruation, but this time there was no change; very little edema was present; treatment was continued.

On Oct. 14, she felt a little stuffy and her legs had been more swollen during the past three days, which she attributed to having been on her feet more than usual. The suprarenal concentrate was now given 4 grains twice daily.

On Oct. 29, her respiration was free and her legs were swollen very little. Treatment was continued on the same basis.

Case 8.—L. D., age 48, farmer, a sufferer from diabetes requiring insulin three times a day, has glomerulo-tubular nephritis of several years' duration, with the usual findings—labored respiration; blood pressure 250 millimeters of mercury; edema; ascites; albuminuric retinitis; increased non-protein nitrogen, casts and albumin in the urine; etc.

During the spring and early summer of 1935, he worked steadily and hard on the farm. At that time his blood pressure ranged from 220 to 240 mm. of Hg. and he had edema of feet and legs and shortness of breath. He noticed a gradual disability to carry on his farm work; breathing became more distressing, exercise increasing the distress; there was more edema of the legs and feet, which gradually increased until he sat up most of the time; when in bed, propped up with several pillows, he finally refused to lie down, fearing that his breathing would stop entirely.

It required morphine sulphate gr.  $\frac{1}{2}$  (32 mg.) and some persuasion to put him in bed.

On Aug. 7, his feet and legs, to the knees, were markedly edematous, with a corresponding marked ascites. His daughter, being a registered nurse, aided materially in carrying out orders.

Treatment consisted of rest, by means of sedatives and morphine when required. He was given milk, eggs and small amounts of other proteins (to compensate for the loss of albumin), fats, some carbohydrates, fruits and vegetables, and all the water he desired. Medical treatment: Insulin, to combat the diabetes; no fluid was aspirated; sufficient saline laxative to have two to three stools a day; mild diuretics; and suprarenal concentrate.

Not having had previous experience with suprarenal concentrate in cases of this kind, the concentrate was given in irregular doses, to study its effect. The following are the amounts he received and the dates the changes were made in dose:

Sept. 7:—Suprarenal concentrate 4 grains, four times a day.

Sept. 14:—Suprarenal concentrate 4 grains, twice daily.

Sept. 19:—Suprarenal concentrate 4 grains, four times a day.

Oct. 14:—Suprarenal concentrate 4 grains, twice daily.

By this method I was able to observe closely the effect of the concentrate. When the total dose for 24 hours was reduced, the edema increased, decreasing again on increasing the amount of the concentrate. Early in its administration, 4 grains twice a day, or 2 grains four times a day, was not sufficient to hold the gain made by the administration of twice that amount. Later this was not true, which may be due to various causes, which will not be discussed here. On October 20, his skin had a dry appearance and felt dry; he noticed dryness of the mouth and throat; the edema decreased; and there was a marked decrease of the ascites and less distress in respiration.

While I am not giving the concentrate full credit for these changes, I feel quite positive that it has a beneficial effect and can be employed advantageously, with other treatments, in these patients.

Realizing that this man will never regain good health, I am thankful for the relief he is receiving.

209 W. University Ave.

#### A CONSERVATIVE

*A conservative is a citizen with a stake in the community, who, in the economic sense, is a little ahead of the game. He is willing to have things improved, if the improvement can be made without changing the rules under which he is winning.*—FRANK R. KENT, in *Am. Mercury*.



# Rossium Therapy in Irritations of the Pelvic Sympathetic Nerves in Women

By David W. Tovey, M.D., F.A.C.S., New York City

Clinical Professor of Gynecology, N. Y. Polyclinic Medical School and Hospital

**G**ALEN<sup>1</sup> (131-200 A.D.), the Greek neurologist, described the aggregation of sympathetic ganglia, nerves and plexuses as buttresses which strengthened as they proceeded from their origin. He named the sympathetic ganglia. Preceding him, Aristotle (384-322 B.C.) had dissected these white cords and ganglia, and had wondered what they signified. It seems that the Arabians had some vague ideas about the subject, but they contributed nothing to the knowledge of the brain, cord and sympathetic nervous systems. Wechsler,<sup>2</sup> in his excellent introduction to the history of neurology, states that it was Langelaan, W. H. Gaskell and J. H. Langley, who defined the autonomic nervous system and laid the foundation for our modern conceptions.

That the pelvic sympathetic nerves carry fibers which conduct the sensation of pain, has been suggested by Heinbecker<sup>3</sup> and by Wetherell,<sup>4</sup> who reports that, in carefully selected cases of severe, intractable dysmenorrhea, resection of the superior hypogastric plexus (the pre-sacral nerves), to remove the sympathetic nerve fibers which supply the pelvic viscera, results in marked amelioration and complete relief from pain in a large percentage of cases. Wetherell also reported that resection of the superior hypogastric plexus eliminated the necessity for such radical procedures as radiation, opiates and hysterectomy. In operations on pelvic organs, I frequently produce a pre-sacral block with 1-percent Novocain (procaine) solution.

## Action and Uses of Rossium

Recently, a neurotropic pyrazolon derivative, known as diphenylmethylpyrazolonyl (Rossium), was brought to my attention as a therapeutic agent acting on the sympathetic nerves. It was ascertained, in a series of gynecologic cases, that this preparation has a useful sedative effect on the sympathetics in the menopause, dysmenorrhea, and painful conditions of the pelvic organs.

It is already well known that pyrazolon

derivatives are essentially analgesics, and the effect of Rossium centers selectively on sympathetic plexuses. This definite analgesic action on the sympathetic is witnessed in the marked reduction or abolition of agonizing distress during the withdrawal of habit-forming drugs.

This drug was suggested to relieve painful disorders of the pelvic sympathetic, and reports of treated patients indicate that there is a sedative effect on the autonomic nervous system. It is administered orally, in capsules, in a dose of 7.7 grains (0.5 Gm.), usually every half hour for from 3 to 6 doses or until relieved, and then repeated, if necessary, every 2 to 4 hours. For example, 8 to 12 capsules may be taken, over a period of 24 hours, to obtain relief from uterine colic due to irritations of the cervix caused by the cautery, electrocoagulation, conization, copper-ionization and painful conditions caused by irritations of the pelvic sympathetic due to pelvic disorders.

In the menopause, Rossium gave satisfactory relief from reflex symptoms, such as vertigo, nausea, insomnia, hot flashes, irritability, and general nervousness. Two typical instances will be outlined briefly, to show the doses necessary to obtain relief.

## Case Reports

**Case 1:**—J. B., aged 41 years, complained of being very nervous and sleepless at night; also of vertigo and of the characteristic flushes. A supravaginal hysterectomy and left oophorectomy had been performed.

One capsule of Rossium every four hours relieved this patient of the climacteric symptoms and enabled her to sleep at night.

**Case 2:**—L. R., aged 54 years, single, was nervous and complained that a tremor of her right foot occurred nightly, while she was sleeping, which would awaken her. Her menses ceased 6 years ago. There was a history of a psychosis 4 years previous to that time.

One capsule of Rossium every four hours (or every two hours, when needed) gave relief.

In the remaining cases it was usually necessary to give the drug every four hours, in some instances repeated at 2-hour intervals whenever the patient was unusually nervous.

For the relief of pelvic pain the dosage varied:

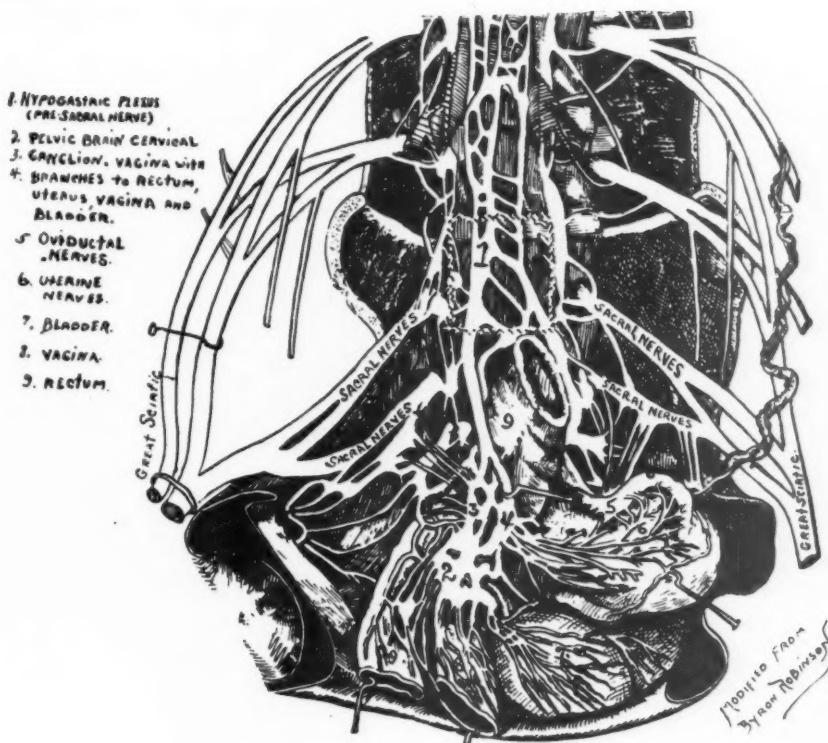
**Case 3:**—A. S., aged 29 years, no children, Complained of pain for one week before her

1.—Robinson, Byron: "Abdominal and Pelvic Brain." Frank S. Betz, Hammond, Ind., 1907, p. 11.

2.—Wechsler, I. S.: "Text-book of Clinical Neurology." W. B. Saunders, Philadelphia, 3rd Ed., 1935, p. 753.

3.—Heinbecker, Peter: *Jour. Thoracic Surg.*, 2: 183, 1932.

4.—Wetherell, F. S.: Intractable Dysmenorrhea: Relief by Sympathetic Neurectomy. *J. A. M. A.*, 101: 1925, 1933; Severe Primary Dysmenorrhea: Relief by Resection of the Superior Hypogastric Plexus. 36: 119 (Jan. 15), 1935.



The Hypogastric and Pelvic Sympathetic Plexus.

menses; since marriage the pain had been more intense on the right side of the lower abdomen.

One capsule of Rossium, given every one-half hour for from 3 to 4 doses, and then every 2 to 4 hours, gave relief from pain.

**Case 4:**—E. G., age 31 years, married 12 years, 2 children and one miscarriage, complained, two weeks in advance of her menses, of pains, which were very severe for two days before and for the first three days of the periods. Her pains occurred across the hypogastrium and on the left side and the back. At times the pain was more severe over the right ovarian region. Her uterus was drawn to the right by adhesions. There was severe pain on moving the uterus. The cervix was eroded and infected. **Diagnosis:** Chronic cervicitis and chronic salpingo-oophoritis.

Rossium, every one-half hour, gave relief after 3 doses; there was continued relief from one capsule every 2 to 4 hours.

**Case 5:**—S. Q., aged 14 years, complained

of pain during the first two days of menstruation. She was relieved of pain by taking one capsule of Rossium every 4 hours, beginning 1 day before the beginning of the menses.

In cases of **uterine colic**, due to treatment of an infected cervix, one capsule of Rossium every one-half hour for 3 or 4 doses gave relief. In a case of uterine colic due to retained secundines after an abortion, colic was relieved after two doses, and this relief was continued by giving Rossium every four hours.

#### Negative Cases

No relief was obtained from Rossium in a patient with an infected ovarian cyst. Twelve capsules, taken in 24 hours, caused nausea and vomiting. In a case of inflammation of the left tube and ovary, the same doses gave no relief and also caused nausea and vomiting. Likewise, negative results occurred in cases of severe primary dysmenorrhea, for which there was no known cause. Even resection of the hypogastric plexus may fail in such cases.

**Summary**

Diphenylmethylpyrazolonyl (Rossium) produced symptomatic relief from pain and general nervousness in a majority of 65 patients treated, who had manifested evidence

of irritation of the pelvic sympathetic. It would, therefore, seem that this drug is indicated in pelvic disorders where an irritation of the sympathetic nervous system is a factor.

57 West 57th Street.

## Notes from the American College of Physicians

Reported by George B. Lake, M.D., Waukegan, Ill.

THE twentieth annual session of the American College of Physicians, held at Detroit, Michigan, during the first week in March,



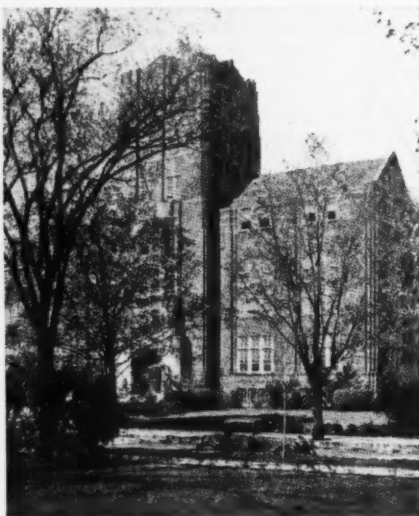
Harper Hospital.

was, in many respects, one of the most successful meetings the College has held. The program was varied and instructive and was carried out almost exactly as timed. The hospitals of Detroit cooperated splendidly. The only possible drawback was that the facilities of the Book-Cadillac Hotel, where the meeting was held, were scarcely adequate for a gathering of 1,200 physicians and their guests. In fact, there are few hotels in the country which could handle such a meeting properly.

Among the interesting things which do not lend themselves to abstracting, was the motion picture, presented by Dr. Earl R. Carlson, of the Neurologic Institute of New York, showing the astonishing progress which has been made in rehabilitating those afflicted with cerebral palsy due to birth injuries, by means of advanced educational methods which enable them to overcome many of their distressing handicaps. Dr. Carlson, himself, is an

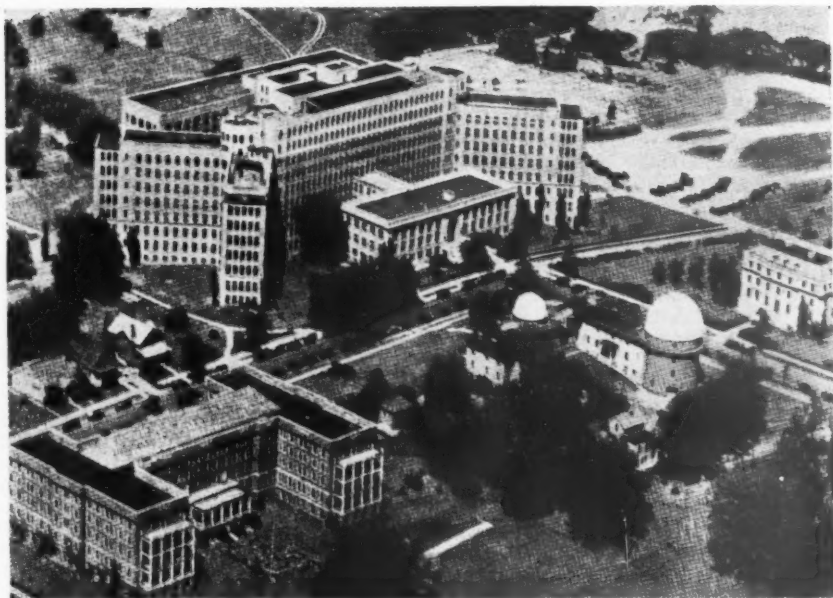
example of what can be done in this line, having been, in childhood, a sufferer from this condition. Physicians will do well to make a note of the fact that it is now possible to do a great deal to ameliorate a disorder which has long been considered hopeless.

Another moving picture which could not be adequately described was that of Dr. William B. Kountz, of St. Louis, Mo., showing the



The Michigan Union.

process of reviving the hearts of dead human beings by means of mechanical perfusion. The hearts of 65 dead persons, from a stillborn infant to a man 73 years old, have been thus revived to the extent of regular ventricular contractions against a pressure of 120 millimeters of mercury, and in a few cases these rhythmic contractions have been maintained for as long as four hours. Unfortunately this can be done only by severing the great vessels from the heart and attaching the con-



The University Hospital—A View from the Air.

nections from the perfusion apparatus in their place; but such experiments may lead to some discovery that will be of clinical value.

Harper Hospital put on an extremely instructive scientific exhibit, scattered through its extensive corridors. This, to some extent made up for the fact that there was no room for such an exhibit at the hotel. One of the striking demonstrations at Harper showed that so-called endocrine obesity can be controlled, in most if not all cases, by diet alone, the same as any other type of fatness.

One day of the meeting was profitably spent in Ann Arbor, where dry clinics and demonstrations at the large and splendidly equipped University Hospital filled the morning, and the general session in the afternoon convened in the commodious Michigan Union—the men students' club—after luncheon had been served there to the visiting members. Many of the Easterners were astonished to see what a large, complete and impressive educational institution the University of Michigan has developed in the Midlands.

#### Commercial Exhibit

The commercial or technical exhibit was very small, owing to lack of space. It was rumored that twice the number of exhibitors who could be accommodated applied for booths, but had to be refused. Many familiar and important concerns were missing.

Among a fair number of new remedies and appliances shown here for the first time, several were of especial clinical importance, a

few of which will be mentioned briefly.

A water-soluble preparation of crystalline vitamin D, prepared by dissolving the vitamin in propylene glycol and known commercially as *Drisdol*, was presented by the Winthrop Chemical Company. It dissolves readily and smoothly in milk and is stated, by Hess and Lewis, to be so much more potent than the solutions in oil that one drop (83 Steenbock units\*) of *Drisdol* will replace 10 to 15 drops (800 to 1,200 Steenbock units) of a 250-D preparation of crystalline vitamin D in the cure of rickets. Rumors were current (but not officially confirmed by the manufacturers) that enormous doses of this product (25,000 to 500,000 units) are being used with success in certain obstinate cases of arthritis.

*Digilanid*, a preparation made from *Digitalis lanata*, instead of *Digitalis purpurea*, was shown by Sandoz Chemical Works, Inc. It is said to overcome, in large measure, the variability of potency which is a marked disadvantage of many preparations of digitalis. It can be given by mouth or rectum, or by intravenous or intramuscular injection.

Parke, Davis and Co., presented *Antuitrin-G*, a concentrated preparation of the growth hormone of the anterior pituitary. This new extract, which is suggested for the treatment of endocrine dwarfism, is still in the experimental stage, due to the lack of reliable information in regard to the frequency of the

\*It should be noted that one Steenbock unit is equal to 2.7 U.S.P.X. revised 1934 units.

condition it is intended to ameliorate, but is well worth trying in cases of dwarfism which can be recognized as being of endocrine origin.

A new anesthetic and bactericidal ointment, prepared from a synthetic quinine derivative and known as *Eucupin Ointment*, was offered by Rare Chemicals, Inc., for use in the treatment of hemorrhoids, pruritus, ulcers, fissures, eczema, burns and sunburn.

For a new apparatus for testing basal metabolism, known as the Jones Motor Basal and sponsored by the Middlewest Instrument Co., it is claimed that it carries a lifetime guarantee; gives immediate readings, on a slide-rule, without figuring; contains no water to spill; and is silent in operation and has no visible moving parts.

Here follow abstracts of a number of the more clinically important papers read at the various sessions and clinics.†

#### DIABETES TOMORROW

By Elliot J. Joslin, M.A., M.D., F.A.C.P.,  
Boston, Mass.

The fortunate diabetics of the younger generation have been living in what we may call the Banting era. Insulin has given these sufferers hope and food and strength.

Now we appear to be on the threshold of a new era, which may, perhaps, be called the Hagadorn<sup>1</sup> period, after the man who, in introducing protamine insulin, has carried us forward another long step in the management of diabetes. We have felt that insulin is so good that it would be foolish to look for anything better, but now that we have started to improve it, a new field is opened up.

Protamine is obtained from the ripe sperm of fish, and is now easy to get. The object of mixing it with insulin is to cause the slow absorption of the latter medicament, more like the normal action of the secretion of the pancreas. The mixing should be done at least 24 hours before the injection is to be made, and the mixture will keep for 14 to 30 days in an ice box. If the syringe has been sterilized in alcohol, it should be dried before taking up the dose.

So far, no allergic reactions (or very few) have been reported with protamine-insulin, and no abscesses have developed. Some insulin reactions (hypoglycemia) have been recorded, but most of them have been mild. To change a patient taking four doses of old insulin a day to one or two doses of the new mixture requires a week or ten days. No patient who has begun to use protamine-insulin has asked to go back to the old form. The blood sugar goes down slowly and steadily, not in peaks and valleys, as formerly.

†All of the session papers will be published in full during the year in *Annals of Internal Medicine*, the official journal of the College.

1.—H. C. Hagadorn, et al: Protamine Insulin. *J. A. M. A.*, Jan. 18, 1936.

Diabetes is a strictly hereditary and lifelong disease. Children are born with the seeds of it within them, even if they do not live long enough for it to be recognized, and they die with the disease, if not of it.

If two diabetic persons marry, all of their children will develop diabetes, if they live long enough. The highest rate for its appearance is in the fourth to sixth decades. The rate of appearance in the first decade is 5 percent. From there it rises to the sixth decade, and then declines.

Today, ten times as many persons live ten years or more after the appearance of diabetes as did so before the advent of insulin. The average duration of the recognized disease is now eleven years. Tomorrow (as time goes) it will be twenty years.

The physician who aspires to success in the management of diabetes must learn more about the disease than the patients know (and that is a good deal, these days), if he wants to keep them under his charge through their lives. He must see these patients at regular and rather frequent intervals (every two or three months, at longest) as long as they live. There should be handy laboratories, where frequent tests of the urinary and blood sugar can be made.

Diabetics must learn to accept a large part of the responsibility for the daily management of their own cases, and must then become crusading teachers in the education of all other similar sufferers who are less well instructed than they are.

#### VIRUSES AND VIRUS DISEASES

By Thomas M. Rivers, M.D., New York City

The diseases now recognized as being due to the so-called filterable viruses are: Poliomyelitis, measles, German measles, herpes (all forms), smallpox, mumps, "colds," psittacosis, dengue, encephalitis (St. Louis type), molluscum contagiosum, and several others. It seems probable that the bacteriophage may be allied to the viruses.

The viruses are obligate parasites,\* whose exact nature is unknown. The smallest ones may be chemical substances. Their profoundest effects are upon the cells in which they grow, producing hyperplasia or lysis of tissue, or both. Inflammation is also present (but is secondary), and there is some perivascular infiltration. The possible relation between viruses and cancer is not known. Quarantine is of no use in virus diseases.

The blood serum (or even the whole blood) of persons who are convalescent from measles, if injected, within six days, into those who have been exposed to the disease, will protect them from it. Given later it does not confer complete protection but frequently makes the

\*This statement may have been misunderstood, as Dochez, in the succeeding paper, here abstracted, stated that the "cold" virus can be cultivated *in vitro*.—G. B. L.



attack less severe and reduces complications. Six days seems to be the time needed for the thorough distribution of the virus throughout the body.

The same things, with modifications, can be said in regard to poliomyelitis and, as far as we know, something like this may prove to be the only, or the most important, means for the prophylaxis of the virus diseases.

### THE COMMON COLD AND INFLUENZA

By A. R. Dochez, M.D., New York City

The respiratory tract is the principal portal of entry for infections into the body, and "colds" are the most common infections, influenza being practically the same thing. Complications are common, and most important, features of these disorders.

Colds are most frequent in temperate climates, where abrupt changes of temperature and weather are common. Their incidence occurs in three peaks during the year: In September and October; in January and February (the highest or most severe); and in April and May.

The prevailing microorganisms found in the respiratory tracts of patients vary at different times. When highly pathogenic organisms, such as the influenza bacillus and the pneumococcus, are present, the attacks are severe.

Epidemic influenza occurs in three forms:

1.—A mild type, with catarrhal symptoms, chiefly in the nose and throat, and little fever. These cases are hard to distinguish from a "cold."

2.—A severe type, with high and long-continued fever, malaise and prostration, but giving no proof of a true systemic infection.

3.—A fulminating type, with pulmonary complications—hemorrhagic pneumonia—in which no specific organism can be demonstrated, though various secondary invaders may be present.

In limited epidemics of influenza, the cases are less severe, and most of them occur in the first sixty days of the calendar year, corresponding to the highest peak of "common colds." In pandemics the cases grow gradually but steadily more severe.

The etiologic agents in "colds" and influenza are a primary condition and secondary invaders. In most cases, no new bacteria appear in the respiratory tracts of the patients, and those present in health are not increased in numbers. In fact, they are frequently fewer, due, perhaps, to dilution with watery mucus or to the presence of bactericidal secretions. Such facts lead us to the conclusion that these disorders are caused by a filterable virus, and animal experiments (which are most successful only with apes and monkeys) bear out this conclusion.

Healthy apes, which had been quarantined for two weeks or more, when inoculated with

filtered secretions from a human patient with a spontaneous "cold," immediately developed colds of spontaneous type. The experiment was then tried on human volunteers, with the same result.

The "cold" virus can be grown in culture, without losing its virulence, for six months or a year. These cultures produced similar results, which tests proved were not due to the culture medium. We feel sure that a virus is the primary agent in most "colds" and cases of influenza, not Pfeiffer's "influenza bacillus."

In 1933, when the interepidemic form of influenza was present, it was passed, in ferrets, by filtered nasal washings; it was then transferred to white mice, where it appeared as a fatal disease and developed antibodies against the virus, which could be used in a prophylactic serum.

The virus from a typical severe case of influenza, produced typical "colds" in 29 out of thirty subjects, appearing in only one case as typical influenza.

It seems probable that the virus disease, *per se*, is mild, but that it promotes secondary infections with pathogenic bacteria, which cause serious results.

### ENDOCRINE IMBALANCE AND METABOLIC DISEASES

By C. N. H. Long, M.D., Philadelphia, Pa.

Over or under function of the various endocrine glands is not so important as is a lack of balance in their activities.

The anterior pituitary has a most important influence on all the other glands. Removal of the gonads, thyroid, adrenals or pancreas causes changes in the anterior pituitary. Addison's disease is associated with loss of the basophil cells in the anterior pituitary and hypoglycemia, even when the patient is being given adrenal cortex extract. After thyroidectomy, the acidophil cells in the anterior pituitary disappear and the basophils degenerate. These changes account for many of the symptoms present. Moreover, hypophysectomy alters the results of total pancreatectomy.

The pituitary exerts a powerful effect upon the liver. Removal of the pituitary, adrenals, thyroid or liver, in experimental animals, will alter the carbohydrate metabolism as definitely as will removal of the pancreas. Inanition and certain central nervous lesions will do the same. Many cases of diabetes occur in acromegaly and in carcinoma or adenoma of the adrenal cortex.

A low-carbohydrate diet prior to a glucose (dextrose) tolerance test will increase the patient's sensitiveness. When dextrose is ingested, the pancreas produces more insulin or the insulin already present becomes more effective. Insulin from the pancreas is inactive and the liver supplies an activator, which is reduced by a low-carbohydrate diet.

If the adrenal cortex or the pituitary or both are removed from a cat, pancreatectomy does not cause diabetes. In fact, the animals die of hypoglycemia; but, even when such an animal is in hypoglycemic convulsions, an injection of dextrose will restore it to a normal condition in from six to ten minutes.

Long-continued over or under function of any organ upsets the balance of the body and causes disease.

#### PERIPHERAL VASCULAR DISEASES

By Drs. R. J. Schenck and M. P. Meyers,  
Detroit, Mich.

Peripheral vascular diseases may be due to trauma (including intense cold) or to inflammatory, degenerative or vasomotor disturbances. If these vessels are dilated, we have erythromelalgia.

In intermittent claudication (pain after exercise) or pain at rest, the lesions are more or less local. Look for a history of cardiovascular disease or syphilis or both.

In these conditions, inspection and palpation, with the patient fully exposed in a good light and even temperature, will give more information than all the laboratory tests. A trained hand can detect differences in skin temperature of one degree Centigrade.

We now have three new tests for use in these conditions: The thermocouple; the oscillogram; and intradermal injections of histamine, observing the size of the flar produced.

In thromboangiitis obliterans (Buerger's disease), 95 percent of the patients are males, and 90 percent are Jews. Most of these patients are heavy users of tobacco. In Raynaud's disease, 95 percent of the patients are females between 17 and 35 years of age.

Typhoid vaccine has been injected intravenously in Buerger's disease, as a form of fever therapy; but during the chill phase thrombosis may occur. It is better to use, for this purpose, a hypertherm, which employs hot, moist air in a cabinet. The alternating suction and pressure treatment, as with the Pavex apparatus, helps many patients.

#### MECHOLYL BY IONTOPHORESIS IN VARICOSE ULCERS

By Irving S. Wright, M.D., F.A.C.P.,  
New York City

The basis of varicose ulcers is a disturbance of the peripheral circulation, and in all such cases the use of tobacco must be forbidden, because it aggravates the symptoms.

Choline derivatives, such as Mecholyl, are useless in thromboangiitis obliterans, but the results of their use are more encouraging in Raynaud's disease and in varicose ulcers.

We have handled a number of varicose ulcers, of from 8 to 40 years' duration, with no other treatment except Mecholyl, applied by iontophoresis, and all of them healed after

from 3 to 100 treatments. All of the patients were ambulatory.

A piece of asbestos paper, large enough to surround the leg at the affected part and entirely free from holes, was saturated with a 1/20- to 1/2-percent solution of Mecholyl and placed around the leg next to the skin.

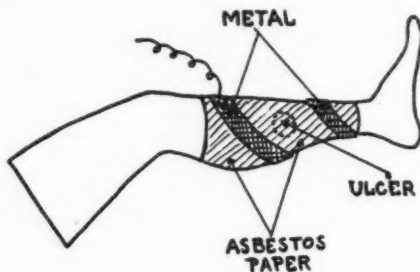


Fig. 1.

Over this a strip-electrode of malleable metal was wrapped in a spiral fashion, *not allowing it to touch the skin at any point* (see Fig. 1), and attached to the positive pole of a galvanic machine, the indifferent (negative) electrode being applied at any convenient point. (The same arrangement is employed in treating arthritis by this method.) The treatments lasted 35 minutes and were given from 2 to 5 times a week. When healed, the ulcers will recur unless the treatments are continued indefinitely, at intervals of a week or ten days.

Applied in this way, Mecholyl produces the same general symptoms which would be caused if it were given in any other manner. If these symptoms become distressing they can be immediately relieved by giving atropine.

Arteriography, using Thorotrast (which is practically without danger), is useful in studying the collateral circulation in all cases of peripheral vascular disease, in order to determine whether amputation is necessary. It will sometimes show true or false aneurysms. The oscillogram is easier to use and gives much information, but is not so accurate as some claim.

Wet dressings must *not* be applied to patients with a disordered circulation and gangrene, unless they are kept constantly warm under a hood heated to 90° or 95° F.

#### ERRORS IN THE INTERPRETATION OF CARDIOVASCULAR SYMPTOMS AND SIGNS

By Paul D. White, M.D., F.A.C.P.,  
Boston, Mass.

The careful appraisal of cardiac symptoms has been too much neglected. A complete history is the most important part of the

study of such a case, and frequently permits one to arrive at a diagnosis without a physical examination.

A woman, who had had "oppression" in her chest for a year, complained of nocturnal attacks of pain, with a feeling of impending death not relieved by nitroglycerin. Her case had been diagnosed as "angina pectoris," but examination revealed no heart disease—no abnormalities, in fact, except slight hypertension (148 to 165 mm. of Hg., systolic).

A careful history showed recurring attacks of **paroxysmal tachycardia**, with a doubled pulse rate. Rest and quinidine relieved her, when she was about to submit to paravertebral injections of alcohol for the relief of her "angina." She is not now afraid of her attacks, when they do occur, and they are merely uncomfortable.

It is easy to superimpose a cardiac neurosis on a case of paroxysmal tachycardia; and it is safe to say that any case of "angina pectoris" which is relieved by quinidine is actually nothing more than tachycardia.

Among the conditions which are frequently mistaken for angina pectoris are: Cardiac neuroses, aneurysm, herpes zoster (before the eruption appears), pericarditis, gastric ulcer, neurocirculatory asthenia, and a number of others.

*Sighing respiration* is never due, primarily, to heart disease; and chronic bronchitis with emphysema is often mistaken for a cardiac disorder; while "acute indigestion" is often really coronary disease. Many patients with heart disease suffer from *insomnia*, which may be largely of nervous origin.

*Palpitation* is not due to heart disease, but generally to neurocirculatory asthenia, which is also often mistaken for thyrotoxicosis.

An overactive heart is frequently mistakenly called enlarged; but, as a matter of fact, the actual size of the heart is generally *underestimated*. The mid-clavicular line is the "normal" left border of the heart. True enlargement is most often the result of mitral stenosis.

*Cardiac murmurs* may not be due to valvular lesions, but to myocardial failure or other disorders. Watch for this in all acute infections, especially rheumatism, where it is often accompanied by dilatation of the left ventricle.

*Aortic stenosis* may be mistaken for mitral regurgitation; and venous congestion and edema may be due to fibrous, constricting pericarditis.

#### NEWER METHODS IN CARDIAC THERAPY

By William D. Stroud, M.D., F.A.C.P.,  
Philadelphia, Pa.

The greatest advance in cardiac therapy is the realization that we must know the etiology of the condition present before we can treat it intelligently. For instance, we

cannot improve a normal circulation, and it is foolish to give digitalis as a routine measure in heart cases. Endocrine disorders can produce most of the symptoms generally attributed to the heart.

In *thyrotoxicosis*, cardiac damage may result from the increased demands made upon the heart by the increase in the body metabolism. Radiation helps in young people with diffuse toxic goiter, when operation is refused, and in other selected cases. Iodine is contraindicated for treatment over long periods.

In *angina pectoris*, psychotherapy is of the utmost importance. Do not frighten the patient by calling his malady by that name. Tell him that he suffers from "temporary (or permanent) anoxemia of the myocardium." In this condition, nitroglycerin should be given for immediate relief; and for remedial treatment, mild, continuous sedation, a low-calorie diet, and aminophyllin (this regime is also helpful in hypertension), along with prolonged rest in bed and, possibly, paravertebral injections of alcohol into the dorsal nerve roots and ganglia.

Thyroidectomy, in these cases, is not now looked upon with so much favor as it was a year or two ago, and cervical sympathectomy is pretty well discredited. One may consider suturing the pectoral muscle to the pericardium, in the hope of increasing the blood supply of the myocardium.

In *syphilitic heart disease*, the best protection against trouble is *prolonged* antisyphilitic treatment.

In *congestive heart failure* due to organic disease (and in some cases of fibrillation), the treatment consists of: (1) Rest; (2) a low-calorie diet; and (3) digitalis. Most patients can be digitalized by 18 grains (1.2 Gm.) of this drug, or an equivalent dose of some special preparation, given by mouth. After that the patient must take a maintenance dose of one cat unit (1½ grain of digitalis or Digalen, or 1/240 grain of Verodigen, or an equivalent dose of any other reliable preparation), daily for the rest of his life. *Aminophyllin* may be given, 1½ to 3 grains (0.1 to 0.2 Gm.), by mouth, four times a day; or 7 grains (0.5 Gm.) in a suppository once daily; or, in an emergency, such as Cheyne-Stokes' respiration, 4 to 12 grains (0.26 to 0.8 Gm.), given by *slow* intravenous injection.

Fifty (50) percent or more of cases of *chronic constrictive pericarditis* can be relieved by surgery. *Mecholyl* is helpful in paroxysmal tachycardia. *Optimism* is of vast importance in all cases of heart disease.

#### TREATMENT OF PSYCHONEUROSES

By Horace K. Richardson, M.D.  
Stockbridge, Mass.

A psychoneurosis is an involuntary disorder of a normal individual, which acts as a protective mechanism between his primitive

instincts and his social ideals. The causes lie in the individual—in hypersensitiveness to sensations or emotions or both.

In order to treat these patients successfully, we must understand the structure of the personality and learn how to rebuild it to fit its environment. Mind and body *accompany* each other, but are not causally related. *Integration* of the personality is vitally important, but it cannot be located in the organic nervous system. The patient must be made to understand the factors in his trouble.

Personality, individuality, and character are not synonymous terms. The personality is psycho-biologic and consists of physical, emotional, mental and moral factors: (1) *Reflex* activities are purely physical, biologic adaptations; (2) *instinctive* activities have to do with individual survival and procreation. They are primitive, but above the purely animal level. When the instinctive life is threatened, the individual is uncomfortable and has a desire to escape, the *expression* of which is personal. (3) *Intelligent* or *mental* activities imply the ability to comprehend and judge; to choose and profit by experience. (4) In the *ethical* field, adaptation is most difficult, and the ability to function ethically requires much training and experience.

In the individuality, mood-swings are universal in normal people, and unless they go too far they are not pathologic. "Temperament" means the degree of sensitiveness to pleasure and pain stimuli. The sensitive and timid man will give obvious evidences of fear. This is not a function of the intelligence.

The stresses and difficulties to which a growing child is subjected shape its reaction patterns, and these gradually become unconscious and automatic. The individual must realize and understand these matters, in order to escape from neuroses.

The child is an unmoral and egocentric creature and must adapt himself to his surroundings, including the pressures of the disapproval of and discipline by the adults about him. This causes the suppression of various impulses which are charged with emotional values, and may result in "complexes."

There is no such object as an adult who is completely mature emotionally; and the response of the individual to this condition of things depends upon the individual makeup and sensitiveness.

The successful treatment of psychoneurotic patients depends upon a wide knowledge of such matters as those here sketched, and a deep and sympathetic understanding of the individual's problems.

#### MODERN TREATMENT OF EARLY SYPHILIS

By Joseph Earle Moore, M.D., Baltimore, Md.

If early syphilis is well treated, late syphilis will disappear. In poorly-treated cases the

incidence of cardiovascular symptoms is 45 percent, and of neurosyphilis, 25 percent. These figures fall to 4 and 3 percent, respectively, in well-treated cases.

The early syphilitic must have 20 or more injections of arsphenamine, in order to prevent infectious relapses. The hospitalization of patients with late syphilis costs this country \$12,500,000 a year. If more were spent on the early cases, less would be needed for the late ones.

Faulty treatment depends upon three factors: (1) The biology of the *Treponema pallidum* (the disease is symptomless in the early stages); (2) the ignorance of the public; and (3) the ignorance or inertia of the medical profession.

Laymen, as a rule, are ignorant and do not want to learn about syphilis, because of the taboos resulting from the sex factor involved; and physicians have not taken the lead in teaching the laity and do not, in general, use modern methods of diagnosis and treatment. Medical men must test for syphilis and hunt for it, as they now generally do for tuberculosis.

The successful treatment of this disease depends upon three factors: (1) *Early* diagnosis and treatment; (2) the use of arsphenamine and bismuth; and (3) *continuous* treatment (without "rest periods"), with alternate courses of arsphenamine and bismuth, for 18 months or more.

Neoarsphenamine, silver arsphenamine, or Mapharsan will do as well as arsphenamine, if they are given in large enough doses over a long enough period of time. Bismuth is better than mercury for the accessory treatment.

A persistent blood Wassermann reaction calls for routine study of the spinal fluid; and complicated cases require consultation with an expert.

In primary cases (which should be regularly discovered by a dark-field examination), it is better to discard serum testing and give the patient *one year of continuous treatment*. Early, Wassermann-positive secondary cases require 18 months of *continuous treatment*. All cases should be followed up, with regular examinations and tests, *throughout the entire lives of the patients*.

The fundamentals of the modern treatment of syphilis are:

- 1.—Early diagnosis.
- 2.—The use of proved drugs.
- 3.—Continuous treatment
- 4.—For from 12 to 18 months.
- 5.—Lifelong observation.

#### CONVALESCENT SERUMS IN ACUTE INFECTIOUS DISEASES

By William Thalheimer, M.D., F.A.C.P.,  
Chicago.

It is difficult to estimate the prophylactic value of convalescent serums in acute infec-



tious diseases, because such serums are not readily available for general use. Where they are available, they are being used more and more. For research purposes as well as clinical use, serum centers should be established at strategic points in every state, where convalescent serum may be pooled and distributed, and records kept. If properly handled, such serums will be effective for as long as a year. The expense of establishing such a center would not be unduly great, and in time it could be made self-supporting.

In **measles**, convalescent serum is acknowledged to be an effective prophylactic, if 5 to 10 cc. are given, intramuscularly, within 5 days of exposure. If given 8 or 9 days after exposure, the attack will be much attenuated and there will be few or no complications. If the child cannot be removed from the infectious environment, the serum should be given every two weeks. In order to give complete protection to all debilitated children and those under four years of age, it might be well to expose them to the disease and then give the serum between the fifth and eighth days, so that they would have a very mild, but completely immunizing attack of measles.

Pooled serum from normal adults will work about as well as true convalescent serum, if given in doses four times as large (20 to 40 cc.) Any robust adolescent or adult can spare 250 cc. of blood (which will produce 110 cc. of serum) every week or ten days for several months. It is, of course, necessary that syphilis, in the donors of all these serums, should be rigidly excluded by careful and repeated tests.

In **scarlet fever**, convalescent serum should be given intravenously, in doses of 50 to 60 cc., early in the disease. Blood for this purpose can be collected as early as 20 days after an attack, if the convalescent has had no fever for 7 days.

Of 800 children exposed to scarlatina and given 20 cc. of pooled convalescent serum, only 2 percent developed the disease; while from 10 to 20 percent of those not thus protected succumbed.

In 1930 patients with severe scarlatina and treated with convalescent serum given intravenously, the disease was much milder and there were fewer complications than under other treatment. The results were more dramatic if the serum was given within the first three days. Immunotransfusion from convalescent adults also gave encouraging results.

The use of convalescent serum also offers interesting possibilities in the prophylaxis and treatment of encephalitis, pertussis, mumps, and other virus diseases.

## THE WATER BALANCE AND DEHYDRATION

By Frederick A. Collier, M.S., M.D., F.A.C.S.,  
Ann Arbor, Mich.

A healthy man retains his water balance by satisfying his normal hunger and thirst. A sick man cannot always do this, and water must be given to him.

Water is introduced into the body as such, and also as a result of the oxidation of other foods, the usual amount being about 1,500 cc. a day. It is excreted in the urine, the stools, and, in the form of water vapor, from the skin and lungs. This last form of excretion is highly important, but is often overlooked, though it may amount to 600 cc. a day, or even more.

A surgical operation causes the loss of 1,000 cc. of water, 70 percent of which is excreted by the skin and lungs. The usual routine "ether bed" abstracts much water through the skin. Ordinary comfortable bed clothing saves the patient from 300 to 400 cc. of water. The kidneys excrete what is left over by the skin and lungs.

In cases of sepsis with fever, and also in hyperthyroidism, the water loss through the skin may be 2,000 cc. or more a day. Vomiting, diarrhea, and biliary drainage (which should always be accurately measured) remove astonishing quantities of water from the body. The physician should decide how much urine he wants the patient to excrete (say 1,500 cc. a day), and then give him enough water to make good all losses. Anuria may be purely physiologic, the result of a lack of water sufficient to meet the circumstances.

A healthy man, deprived of water for four days, will lose 6 percent of his body weight. The specific gravity of his urine will rise to 1.042; the non-protein nitrogen to 45; and the urine will show traces of albumin and a few red blood cells and casts. Imagine what would happen if he had an attack of vomiting! A dehydrated person, who has lost about 4,000 Gm. of weight, will need about 8,000 cc. of water the first day; after that about 3,000 to 4,000 a day.

## EMOTIONAL DISTURBANCE AND BODY FUNCTIONS

By Carl D. Camp, M.D., Ann Arbor, Mich.

Many so-called functional conditions should properly be called *emotional*, which means agitation, conflict, stirring up, rather than mere feeling. Emotional phenomena are both mental and physical and arise from a confused and ineffectual attempt to solve the problems of one's environment. The physical symptoms of fear are well known, but their causes lie deep in the organism.

In these cases, observations made on actual patients are far more instructive than those made on reasonably normal friends or expe-



rimental subjects. The principles apply, not only to psychic patients, but also to those having organic lesions. The complaints are due to changes in physiologic functions resulting from emotional disturbances, and their pattern will be *individual* (in the stomach, for instance), whatever may be the type of the emotional upset.

We cannot transfer the results obtained upon reasonably healthy animals to human patients, nor have group experiments any validity, because emotional reactions in human beings are *strictly individual*. An occurrence which may frighten one person and make another angry, may leave a third wholly unmoved.

Emotional effects last *only while the conflict endures*. They do not hang over, as many suppose. A merchant of good reputation raised an alarm of burglars and his safe was found open, with the money gone; but the nervous upset following this occurrence *persisted*, showing that it was *not* the result of a single fright. His condition was diagnosed as hyperchlorhydria and various other physical conditions; but when he was confronted with the psychologic facts, he confessed that he had faked the burglary in order to recoup his losses.

The problems of childhood seem serious to the child, and if they are not solved by frank and free discussion, they may result in disability in later life. Even the body structure may be changed by prolonged emotional stress, and these changes may be permanent.

#### THE TREATMENT OF PNEUMONIA

By Rufus I. Cole, M.D., New York City

It is improper to wait for signs of consolidation before making a diagnosis of pneumonia. The early symptoms—chill, fever over 102° F., cough, and rusty sputum—are enough for a diagnosis. All who are "threatened with pneumonia" have pneumonia. The pneumococci should be typed at *once*—not tomorrow morning—because, in Type I cases treated *early*, the specific serum is vastly helpful, though children generally recover

without it. In cases treated before the third day, only 4.5 percent die; during the next day or two the mortality rises to 10 percent (control cases, 35 to 40 percent). All Type I cases should have serum, no matter how late it is given.

The concentrated serums contain nothing which is not present in the older types, and are more expensive; but unpleasant symptoms and serum sickness are much less frequent when they are used. Of a reliable serum, concentrated from three to five times, give 20 to 30 cc. (90,000 units) intravenously, and repeat the dose every four or five hours until results are obtained. There are some risks from large doses, but these can now be guarded against and are not serious. Test the patient for sensitiveness; inject the serum *slowly*; and have epinephrin ready for immediate use. In Type II cases the good results are not so certain, but they are encouraging and should be followed up.

Aside from serums, the most important factors in treatment are *rest* and *reassurance*. Many of these patients die of fear.

If pleural pain is present, give morphine *carefully*, but *not* in the presence of moist râles. Oxygen tents and chambers, using not more than 40 to 50 percent of oxygen, help the cyanosis materially; but a few hours of oxygen treatment does no good. The patient should be kept in the chamber or tent until the toxic process is over, and then returned to room atmosphere *gradually*.

The blood chlorides are reduced in pneumonia, and it is well to give from 5 to 10 Gm. of sodium chloride, in capsules, daily; or it may be given intravenously. Also give 3,000 cc. or more of fluid daily, intravenously and with dextrose if this is indicated.

Circulatory insufficiency comes *late* in this disease, and little can be done to combat it. These patients die of *respiratory* embarrassment. Digitalis is rarely helpful.

In selected cases and given by experienced men, artificial pneumothorax deserves further trial. It relieves pleural pain, but does not influence the course of the disease.

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#### WATCH YOUR TAXES!

Just now additional expenditures are being urged upon school districts, counties, cities, states and the federal government. The expressed aims appear legitimate, but we should go beneath surface claims, beyond stated aims, and ascertain where the whole thing is leading to. When a scanty few thousand dollars, or even hundreds of thousands, are sought, the appeal is to the county, city, or state, but when the demand runs into the millions, or even billions, the demand is upon the federal government.

The point is this—how much of the money being asked, in each instance, is based upon some plan that means general benefit or improvement, and how much of it is to carry out some project that appeals to the propagandists who are urging it? Just ask yourself that question when you hear some one proposing any plan that means added taxes.—COMMITTEE ON AMERICAN EDUCATION.

# PHYSICAL THERAPY AND RADIOLOGY



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M. J. HUBENY, M.D., F.A.C.P., F.A.C.R.

## Artificial Fever as a Therapeutic Agent

SOME years ago the medical profession was deeply interested in the experimental records, published by various neurologists and syphilographers, showing that certain grave forms of syphilitic infection, especially those involving the central nervous system, were markedly benefited by the development of malarial fever in the patients. It was supposed at the time that these good results were due to an antagonism between the plasmodium of malaria and the spirochete of syphilis, the plasmodium destroying the spirochete, so that the progress of the syphilitic disease was definitely arrested.

It is now believed that it is quite possible that these beneficial results may have been due to the deleterious action of the fever heat of the body induced by the malarial germs, the spirochete not being able to survive the abnormal temperature. This suspicion is strongly supported by some recent observations showing the effects of artificially induced fever, local and general, in arresting and even curing certain cases of cancer and of neisserian infection.

The successful treatment of pus-tubes and general pelvic gonorrheal infection by heat, electrically produced, was recently reported by Bierman and Horowitz, of the Beth Israel Hospital of New York City. These observers encircled the bodies of the patients, from the waist to the hips, by a girdle-like apparatus, and the temperature of that portion of the body was elevated to 110° or 110½° Fahrenheit, for a period of from three to four hours, while the general body temperature was raised to 105° Fahrenheit. The surgeons re-

port that there was no pain associated with this treatment, although there was a considerable degree of discomfort, sufficient to necessitate the use of sedatives. No bad after-effects were noted nor, it is claimed, is there any danger associated with the method. Twenty-three (23) women suffering from pelvic gonorrheal disease were treated in this manner, and all were either promptly cured or greatly benefited. In some of the cases only one or two of these so-called "fever treatments" were necessary to effect a cure of the pelvic condition.

The gonococcus, of which, clinically, there are numerous strains, is resistant to ordinary fever temperatures, some strains more so than others; but it has been found that all strains are destroyed by a temperature of 110° Fahrenheit, continued for three or four hours. Literally, the germs burn to death, while the normal body tissues, including the fat, remain unharmed. It is known that the margin between the degree of heat necessary to kill the germs and that which the flesh can stand is very small, though still quite definite, but the modern electrical appliances can easily maintain this delicate balance.

In this connection, it has also been demonstrated clinically that local fever, artificially produced by the Keltering apparatus, has remarkably benefited cases of gonorrheal arthritis that have resisted ordinary methods of treatment. Patients so treated recently in Detroit have shown notable improvement, in some instances only one treatment having effected a cure.

When it is remembered that the methods

of treatment hitherto employed in the care of pelvic gonorrhea usually require months to bring relief, and often fail without surgical assistance, the speedy cures reported by the New York investigators and others are exceptionally gratifying. Annually hundreds of thousands of women are afflicted with this disease, and thousands of major abdominal operations are necessitated by the condition; while total sterility and more or less permanent invalidism are frequent sequelae. The same is true of gonorrheal joints and gonococcal infection of other serous membranes. Therefore, any trustworthy therapeutic innovation in the treatment of gonorrheal infection outside of the urinary tract will be gladly welcomed.

Another recent interesting suggestion is that emanating from the work of the roentgenologists of the International Cancer Research Foundation, of Philadelphia. This is the treatment of cancer by a combination of artificial fever and x-rays—the use of the so-called “hot x-rays.” This method of treatment is described in the annual report of the Foundation, and is the result of numerous researches sponsored by the Foundation during the past year, in America and Europe.

The x-ray fever investigations have been carried on under the supervision of Dr. Warren L. Stafford, of Rochester, New York. The work has been done exclusively upon animals, and has been successful only when tried on rabbits. A 100 percent increase in the cures of cancer in these animals has been obtained

by these investigators. In their work, every type of artificial fever was tried, from “radio waves” to hot water baths. The best results were obtained from the development of a local fever resulting from the use of hot applications to raise the temperature of the part of the body receiving the x-ray treatment. Various doses of x-rays also were tried, and it was found that small doses given frequently produced the best results. When 53 rabbits were treated by the x-rays alone, 42 percent of their cancers disappeared; but when fever was added to the x-rays in another 50 cancerous rabbits, the percentage of cures was doubled to 84 percent. The investigators believe that even better results will be obtained by protracting the time of the small doses of x-rays in combination with the fever.

Along this interesting line of research is the statement very recently made by Dr. Walter Gray Crump, professor of surgery in the Flower Hospital, of New York City. He states that, by generating artificial fever with the aid of a fever apparatus that raised the body temperature as high as 108° Fahrenheit, cancer in human beings has been largely controlled and life prolonged.

The use of artificial fever as a therapeutic agent apparently must be considered henceforth as a remedial agent in localized gonococcal infection, as well as in certain cases of cancer. Whether or not it will prove applicable to all cases of malignant disease has yet to be determined.

W. A. N. D.

## NOTES AND ABSTRACTS

### Short-Wave Diathermy in Coagulation of Tonsils

THE therapeutic advantage of one wave length over another, or of short-wave over long-wave diathermy in the removal of tonsils, is disputed. However, certain advantages are gained in using short-wave, because of its more practical mode of application in tonsil coagulation, as well as in its general use. The advantages are summed up as follows: (1) More ease and practicability of application, by reason of using a blunt electrode and treating by surface application; (2) coagulation is practically instantaneous and easily controlled; (3) the time required per treatment is materially lessened because of the rapidity of action; (4) usually

the indifferent pole may be dispensed with; (5) danger of bleeding is markedly lessened; (6) the procedure has the appearance of simplicity to the patient.—Dr. WILLIAM A. Gross, of Chicago, in *M. Rec.*, Mar. 4, 1936.

### Irradiation Treatment in Carcinoma of the Uterus\*

DURING the past 14 years, definite improvement has been made in the technic of irradiation of carcinoma of the uterus, both in the use of radium and x-rays. Even incomplete irradiation produces ten-year cures in early uterine carcinomas, as is shown by some of our group of 1,143 cases, during the

\**Radiology*, Feb., 1936.

period of 1921 to 1925, but will be of little benefit to those with pelvic gland metastasis.

The intracavitary use of radium is limited to the local pathosis in the uterus, and very little permanent effect can be expected in the metastatic pelvic gland areas. Here, external irradiation by means of 200 kv. x-rays has been shown to be of value. The x-ray irradiation should be a thorough, fractionated, daily course, and followed by the immediate use of radium in the uterus. Supervoltage x-rays of 500 kv. or higher may prove to be a more efficient addition to the radium than the 200 kv. This supposition is based upon the primary regression so far obtained.

WILLIAM E. COSTLOW, M.D.

Los Angeles, Calif.

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## BOOKS

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### Holzer: Short-Wave Therapy

**FOUNDATIONS OF SHORT WAVE THERAPY.** Physics, Technics, Indications. An Introduction to the Physico-Technical Principles and Medical Applications of Short Electric Waves, for Physicians and Biologists. *Physics and Technics* by Wolfgang Holzer, Dr. Ing., Assistant in the Physiological Institute of The University of Vienna. *Medical Applications* by Eugen Weissenberg, Dr. Med., Medical Superintendent of The Short Wave Section of The University Clinic for Nervous and Mental Diseases in Vienna. Translated by Justina Wilson, F.R.C.P. Edin., and Charles M. Dowse, B.Sc., Eng., Lond. With 53 Illustrations and X Tables; 228 pages. London: Hutchinson's Scientific and Technical Publications. 1935. Price, 12/6.

Three-quarters of this brochure are devoted to a highly technical consideration of the physics of short-wave oscillation. For the mathematically minded, this comprehensive information will prove instructive; unfortunately, however, the average physician will find it somewhat laborious to glean those interspersed details which will enable him to gain a more practical and scientific concept of this abstruse and still imperfectly understood subject. The concluding quarter of the booklet enumerates various conditions found satisfactorily responsive to short-wave therapy. In conformity with the usual German teaching, the ultra-short wave lengths and "weak" treatments, or exceedingly mild thermal sensory reactions, are stressed.

J. E. G. W.

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### Harrison: Roentgenology

**A TEXTBOOK OF ROENTGENOLOGY.** The Roentgen Ray in Diagnosis and Treatment. By Bede J. Michael Harrison, M.B., Ch.M., D.M.R.E. (Cantab), F.A.C.R.

Director of Department of Roentgenology, Vancouver General Hospital; Roentgenologist to Vancouver Public Health Institute for Diseases of the Chest. Baltimore: William Wood & Company. 1936. Price, \$10.00.

Specializing roentgenologists have reference atlases and elaborate monographs dealing with various phases of their specialty, but the average physician and surgeon does not know as much as he should about the possibilities of the x-rays, in diagnosis and treatment.

Dr. Harrison has supplied this need by covering practically the entire field in one well-illustrated volume. It is a new form of presentation, written with a clarity which makes it easy for busy physicians, surgeons, pathologists and even students to grasp readily, while forming a handy single-volume work for the radiologist. He makes it plain that the clinician must have at least the better understanding of radiologic possibilities which this one volume supplies, in order to give to and receive from the radiologist the best and most profitable cooperation.

Most books emphasize the x-ray film and work back to the pathology. Dr. Harrison takes pathology and shows what radiology can do in the way of treatment or in showing up lesions without resorting to surgery. One is surprised at the variety of disease conditions for which detailed treatment is given.

Here is a work on roentgenology which every actively practicing clinician can study and refer to with profit.

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## NEWS

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### American Congress of Physical Therapy

THE fifteenth annual scientific session of the American Congress of Physical Therapy will be held at the Waldorf-Astoria Hotel, New York City, September 7 to 11, inclusive, 1936. An excellent program has been prepared.

For full particulars, write to Dr. A. R. Hollender, Chairman, Convention Committee, 30 N. Michigan Ave., Chicago, Ill.

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### Information On Radium

THE March, 1926, issue of the *Radiologic Review and Mississippi Valley Medical Journal* was their ninth annual "Radium Number," and contains much valuable material dealing with that method of treatment. Those who are interested in the subject should write at once to the Review (P. O. Box 152, Quincy, Ill.) and arrange to have their subscriptions start with that special issue, or at least to procure the "Radium Number."

# PROCTOLOGY

●  
ASSOCIATE EDITOR

WILLIAM A. HINCKLE, M.D., Peoria, Ill.

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## Anal Fissure

By William A. Hinckle, M.D., Peoria, Ill.

TO one who has not experienced the pangs of an anal fissure, it seems almost unbelievable that so small a lesion could be responsible for so much local discomfort and, at times, be the cause of such a variety of reflex symptoms.

Fissure is one of the most common of anorectal disorders. Pain of some character and degree is usually present and is the chief symptom. Sometimes this discomfort is only an annoying burning during or after defecation. Again it may be agonizing and prolonged to the point of incapacity for work and inability to sleep.

I well remember one fissure patient, the mother of several children, who told me she would rather have a baby than a bowel movement, as the pains from the former were less severe and prolonged. Another patient who had refrained from defecation for five days assured me in all seriousness that she would not have another movement till something was done to prevent the awful pain that was sure to follow.

Reflex pains are often associated with anal fissure. These are usually referred to the genital or urinary organs. In some cases the pain is referred to the back and down the leg, often simulating sciatica.

The uninformed usually diagnose all anorectal discomfort as piles. Fissure is no exception to this rule. These two conditions may, and often do coexist, yet they may have little direct connection. The lesion of fissure consists of a small crack or ulcer in the anal canal, and is easily overlooked. It is usually not over half an inch long. It begins at the pectinate line, about the middle of the canal, and usually extends downward to the anal verge and sometimes up to the crypt above.

If of recent origin, the fissure may be only a superficial break in the anal lining. If of longer duration, the lesion may involve the deeper structures, even extending down to the muscle fibers of the external sphincter. When chronic, the walls of the fissure are usually indurated and an edematous tag of

skin, the so-called sentinel pile, marking the lower limit of the fissure, is usually found at the anal verge.

The sentinel pile and the lower pole of the fissure are usually visible when the buttocks are separated. If the anal canal is too tight or the sphincter spastic, as is often the case, it may not be possible to see the fissure without much discomfort unless some sort of anesthetic is used.

### Etiology

There is no one cause of fissure. Ball long ago asserted that most fissures result from a tearing down of one of the anal valves or crypts of Morgagni, which are in the anal canal at the mucocutaneous junction. Following his lead, others have since claimed that a torn crypt is the cause of every fissure. Most authorities however agree with Mummery that only a small minority are thus caused. This is evidenced by the fact that in most fissures the valve can be seen intact above the site of the lesion.

The most constant predisposing cause of anal fissure is doubtless a constricted and inelastic anal lining. Such a condition is often found, even when no fissure is present. Any irritation or inflammation of the anal lining may tend to fibrosis and lessened elasticity of the mucocutaneous tissue. Given such a contracted and inelastic canal, and any over-distention of the canal, as by a large and constipated stool, diarrhea or violent catharsis with straining and eversion of the canal, or even careless instrumentation, may be sufficient to cause a slight laceration and so produce a fissure. Once formed, repeated movements or straining tend to aggravate the lesion.

Were it not for such constriction and diminished elasticity of the anal lining, an uncomplicated fissure should heal as readily as a surgical fissure which is always produced in a hemorrhoidectomy, fistulectomy or cryptectomy.

About 90 percent of all anal fissures are found in the posterior quadrant of the anal canal. The next most frequent site is an-



terior. The latter is exceedingly rare in the male and is usually found in women only after childbirth. Lateral fissures are even more rare. Multiple fissures are suggestive of syphilis.

This preponderance of fissures in the posterior quadrant is doubtless due to the anatomic structure of the part. From its attachment to the coccyx the external sphincter muscle passes anteriorly to the posterior margin of the anus. Here the fibers divide and pass on either side of the canal, reuniting anteriorly in the perineal body. Only a few fibers of the sphincter encircle the canal posteriorly. The separation of the muscle posterior to the anus leaves a small triangular space, the so-called Minor's triangle, where the anal lining is poorly supported. Any overdistention of the anal canal is apt to cause a break in this area of lowered resistance.

#### Treatment

Successful treatment of anal fissure will be determined by the size, character and duration of the lesion, and the condition of the canal itself. In recent uncomplicated cases, where the lesion is not too deep and indurated, when drainage is free and the canal not too constricted and inelastic, conservative treatment may be tried with reasonable hope of success.

In such cases the bowel movement should be kept soft and easy by diet and, if need be, the use of mild laxatives. A hot sitz bath after each movement will usually relieve the pain. Applications of nitrate of silver, while often painful, will sometimes promote healing. Soothing and stimulating ointments are often of value. Conservative treatment is more successful in children and young adults than in older people. Anterior and lateral fissures respond more readily than posterior ones.

In recent years, injections of anesthetics having a prolonged action, such as a 5-percent aqueous solution of quinine and urea, hydrochloride, or oily solutions of Anesthesin

or Nupercaine, have been successful in many uncomplicated cases. The anesthetic is injected under the bed of the fissure and into the adjacent muscle. The results are probably due to relaxing and so putting the muscle at rest, thus relieving irritation, freeing circulation, and permitting drainage.

When conservative measures fail to produce prompt results, and in all cases complicated by induration, sentinel piles or channels, where the anal lining is constricted and inelastic, or where the sphincter is hypertrophied or hyperspastic, some form of surgical procedure is indicated.

Divulsion, incision through the base of the fissure, excision of the fissure, incision of the sphincter muscle, either partial or complete, all have their ardent advocates and, if properly done, either of these procedures will give the desired result for each will relieve the predisposing constriction and inelasticity of the anal canal. Without remedying this predisposing cause, neither these nor any other method will give satisfactory and permanent results.

Regardless of the method used, any coexisting sentinel pile, subtegumentary channel, involved crypt or other complications must be removed and free drainage provided.

My own preference is for a slow, careful but thorough divulsion, supplemented by such other surgical procedure as the individual case demands. In my hands this procedure has given prompt relief and a more speedy and permanent cure, with less inconvenience and incapacity, than have the more radical procedures. Hospitalization and a general anesthetic are not necessary. The work may be done satisfactorily in the office under local anesthesia, but the patient should lie down for an hour or more afterwards.

There are few therapeutic procedures that give such spectacular relief and are so greatly appreciated by the patient as proper treatment of an anal fissure.

Jefferson Bldg.

## NOTES AND ABSTRACTS

### Principles of Local Anesthesia\*

In the past twenty-five years, L. Adam, of the University of Budapest, has participated in over 31,797 major operations, all done under local anesthesia, without a single fatality during operation. Of these operations, 7,200 were performed under procaine, 6,675 under

Tutocaine, 4,940 under Nupercaine, and 4,982 under Pantocaine.

After this large and favorable experience with these anesthetics he abandoned them all and now uses certain modifications of the Schleick, Hackenbruch and Oberst methods—all methods of nerve block. He has also discarded spinal, paravertebral and trunk anesthesia, preferring to use the anesthetic solu-

\*Surg. Gyn. and Obst., March, 1935.

tion near the field of operation. By using very dilute solutions of slow absorption, a sufficient amount can be used to give complete anesthesia without danger of toxic effects. If needed, additional amounts are injected around the field during operation. This continual supplemental dose makes it possible to complete, under local anesthesia, any operation so started.

He thinks the usual warning against the use of infiltration anesthesia in inflamed and malignant areas, for fear of spreading the infection, is not well founded. If the field is small, he prefers circular infiltration into the healthy tissues; but, if necessary, he does not hesitate to infiltrate the inflamed tissue. He has never observed any spread of the infection or other bad results from such management, but rather the contrary.

*Editorial Comment:* Unfortunately the Doctor does not give details of his technic in anorectal surgery. His assurance, however, of the safety of infiltration anesthesia in infected tissue confirms the observations of many proctologists who use this technic almost exclusively, even in infected hemorrhoids, abscesses, and fistulas.

W. A. H.

### Diagnosis of Rectal Diseases\*

**A**LTHOUGH patients with systemic toxemia from anorectal infection are numerous, they are not all studied in a manner which brings to the foreground the fundamental changes in the body.

If chronic infection is as significant as it appears to be, we must avail ourselves of every diagnostic and therapeutic means to minimize its ravages. Every possible focus must be searched for, so that our patient may not be allowed to harbor indefinitely such structures as are known to be infected.

In carefully-taken clinical histories, cases of anorectal infections always give data indicating a pathologic condition within the rectum. Such clinical data naturally suggest a digital exploration and proctoscopic inspection.

The failure to recognize focal infection of rectal origin is, to a great extent explained by: (1) the variety of its causative factors and secondary digestive changes; and (2) the anatomic relations of the rectum and anal canal to their adjacent organs. For these reasons, disturbances from anorectal infection are frequently ascribed to a non-existing or coexisting pathologic condition in the neighboring structures.

CHARLES J. DRUECK, M.D.

Chicago, Ill.

\*Am. Med., Jan., 1936.

### Nonspecific Ulcerative Colitis, Terminal (Distal) Ileitis, and Bacillary Dysentery\*

**F**ELSEN summarizes the evidence which he has accumulated in support of the contention that bacillary dysentery, distal ileitis and nonspecific ulcerative colitis are merely different stages or manifestations of the same disease.

Acute bacillary dysentery may be exhibited in many bizarre forms. Attention is called to five atypical clinical types encountered in two recent outbreaks: (1) Asymptomatic type; (2) constipated type; (3) appendicular type; (4) neurotropic type; (5) unusual features in Sonne-Duval dysentery.

Nonspecific ulcerative colitis is the chronic stage of bacillary dysentery. The specific dysentery organism has died out, in most cases, and secondary invasion has occurred, usually with the enterococcus and *B. Coli*.

The development of nonspecific ulcerative colitis may be divided into three stages:

1.—Stage of acute bacillary dysentery. Any case of acute bacillary dysentery which lasts for more than three weeks is considered a suitable one for the development of nonspecific ulcerative colitis. This opinion is based upon the author's follow-up studies of the acute cases.

2.—Stage of chronic bacillary dysentery with discrete focal lymphoid necroses or geographic denudations of the mucosa.

3.—Stage of nonspecific ulcerative colitis, which blends imperceptibly with Stage 2 and is characterized by its long duration (one to ten years or more) and dense mural fibrosis in the healing stage, with or without intramural abscess formation.

*Treatment:* (1) *Stage of acute bacillary dysentery:* supportive and symptomatic, daily administration of castor oil; intravenous injections of 5-percent dextrose in physiologic saline solution or transfusion, for dehydration and hemorrhage, where indicated; high-titre dysentery antitoxin during the first few days; (2) *Chronic stage:* intestinal oxygenation, dysentery-colitis serum and vaccine, high-vitamin, high-caloric but well-balanced diet. Limitations based on low residue have little influence on the course of the disease. Oxygenation appears to act by inhibiting the growth of toxic anaerobic spore bearers, by exerting a soothing influence on the spastic bowel, and by preventing the development or facilitating the discharge of intramural abscesses.

W. A. H.

\*N. Y. St. Jour. of Med., June 1, 1935.

# A LIVING FOR THE DOCTOR

(The BUSINESS of Medicine)

## Medical Service at Public Expense

By G. M. Russell, M.D., Billings, Mont.

LESS than ten percent of his patients come to the average physician for an annual physical examination, although the charge for it is reasonable and every effort has been made to induce people to avail themselves of it. It is doubtful if, among people able to pay for such an examination, 1 out of 500 has it done. This is more due to a lack of education than to lack of ability to pay. It is extremely questionable whether a very large number could be induced to have a yearly physical examination under any circumstances, judging from my experience with it.

Education and medical care are entirely different necessities. Every one has to have an education and, as a consequence, all are taxed equally to provide education for every one. People who have no children to educate have had that education themselves at State expense, and are therefore in the same class. Medical service is required only by a certain number. This is acknowledged by the statement, "In any one year the cost of illness falls too heavily on a few individuals." To put a tax on every one to supply medical care for only a certain number who require it does not put this in the same class with State provision of education. According to such a scheme, 40 million people would each year be paying taxes for service they do not receive.

### Charity Patients

No physician has ever been punished or reprimanded by any medical society for doing charity work. The persistence with which certain advocates of State Medicine repeat the statement that physicians are condemned for doing this class of work is equaled only by the claim made by the same people, that communal medicine is the only system consistent with American citizenship, and is equally ridiculous. Neither statement is demonstrable, and the latter statement is nothing more than an arbitrary personal opinion.

No charity patient is refused service by the average physician, and those who can and do pay even a small percentage of their doctors' bills receive adequate service. It is only those dead-beats who could pay something

but never do, that are turned away by physicians, and this is the class that would be the most greatly benefited and encouraged in sliding through life without paying.

When everyone is taxed for the medical care of all persons, is it reasonable to suppose that many people who pay those taxes are, in addition, going to pay a physician for his services in private practice? The allusion frequently made to the public school system indicates that taxation is the method the advocates of State Medicine have in mind to secure funds.

The claim has been made that the people have a right to decide what they shall pay for medical service and how they shall pay it. Are lawyers told what they shall charge their clients, and how they shall be paid? In what business or profession does the one who pays dictate what he shall pay and how? Would not a law making such a provision be class legislation?

### Bureaucracy

The protagonists of State Medicine may be conceited enough to think that they can evolve a system of communal medicine which does not contain any or all of the elements incorporated in the various systems of Europe. What is this mysterious system that differs in every way from the systems of Europe? Since the simile of the public schools is brought in, it is to be inferred that the funds for the payment for medical service are to be raised by public taxation. If so, wherein does it differ from the system of England, in the manner of raising funds? And if it does not so differ, herein lies the greatest objection that has been made to it—the formation of immense bureaucracies, extensive administrative machinery, powerful political machines. Naturally no system of this type, based on taxation, is going to be turned over to the medical profession to manage and control.

United States Senator Champ Clark states: "Bureaucracy is State and local, as well as Federal. It may be defined as a vast organization of administrative officials of every category, who, once on the public pay-roll, devote their efforts, rarely in unison but al-

ways persistently, to increase the public expenditure. The fact is that we have never created a government department, commission or bureau which did not immediately start in to multiply itself by discovering new fields for its regulatory or inquisitorial authority over the ordinary citizen, and new necessities for increased personnel. Very few of the new jobs created are ever abolished; and when they are abolished, two or three new jobs are created in their places."

President Coolidge once said:

"Of all forms of government, those administered by bureaus are about the least satisfactory. Being irresponsible, they become autocratic. Unless bureaucracy is constantly resisted it breaks down representative government and overwhelms democracy."

### Hospital Charges

Physicians are receiving no higher fees than they did thirty years ago. If these medical economists really want to correct the source of this high cost, they should urge the taking over of all hospitals by the State, providing hospitalization for everyone at public expense. At any rate, if they are to employ themselves in this respect, their endeavors should be concentrated on the hospitals alone. The various schemes that have been proposed are very profuse in outlining plans for new methods of carrying on the doctors' business, but they fail to mention one single cure for the enormously increased expense of hospitalization. In any plan, whether it be the "straw man" systems of Europe or any other, the hospital would absorb the cost for the care of the patient, which it requires under the present conditions.

It is a fact that hospitals are making no profit, and most of them have to be assisted by endowments or donations. The saving, therefore, in any proposed arrangement for the complete care of the patient, cannot be arrived at through savings in the hospitals as at present constructed and managed, and it follows that any reduction in cost must come from the lowered income of the physician, or by reason of his doing two or three times as much work as he formerly did, for a smaller financial return for each service. If, as has been suggested, there would still be physicians in private practice, this doubling or trebling of the work done by each "panel" physician would deprive those in private practice of work for which they formerly received moderate fees.

When it is acknowledged and considered that, due to the efforts of the medical profession, practically all the scourges that have ravaged the country in the past are under control; that, owing to the absence of these diseases, countless millions of dollars of expense for the treatment of them have been

saved; that the number of deaths avoided by reason of preventive measures originated by medical men is incalculable, it does seem the essence of non-appreciation to now endeavor to penalize the agency that brought about these beneficencies by compelling members of that profession to adopt methods of practice not in accordance with their desires, resulting in lessened income, because of an increased expense (hospital costs) for which they are in no way responsible and in the results of which they do not participate, in order to relieve a situation due, in a great measure, to the reckless expenditures and lack of judicious economy and saving by the general public in the past.

### Medical Cults

The squandering of many millions of dollars on the bizarre methods of fifty-one self-styled healing agencies, the exponents of which have had preparation, in the great majority of instances, not extending over more than three to six months (and some of whom are practicing on mail-order diplomas), is responsible for the inability of many people to meet legitimate medical expenses. If, as would be inferred from the furore being raised nationally in regard to it, regular medicine is recognized as being the one scientific and effective method of coping with disease, to the extent that there is a nationwide insistence for its reorganization and it is threatened with State control, there should be some way of putting out of business the elements that are diverting a large proportion of the resources legitimately due the components of the profession under fire.

Some of these cults are now obviously acknowledging the falsity of their unproved theories and claims by resorting to electricity and physical therapy methods, which have always belonged to regular medicine, in order to bolster up their incomes, thus depriving physicians of revenues which have always, and still do, belong to them. Their activities are often essentially piratical, hamper and interfere with the highest development of medical science, and simultaneously create considerable disability, delayed recovery and occasional death by reason of deferred proper treatment. It is conceivable that considerable subsequent increased expense may result. Many patients finally appear in physicians' offices impecunious, having been depleted by devotees of these innovations.

### Insurance

The argument has been advanced for the adoption of communal medicine, that one can insure against every other contingency except illness; but there are a great many things one cannot insure against. One cannot insure his automobile against the effects of

wear and tear incident to use, requiring the reboring of cylinders and new pistons and a general overhauling at the end of three or four years; nor can one insure against the enormous depreciation that will occur upon his car in that length of time, when he trades it in on a new one. He cannot insure his house against the necessity for a new roof, nor against the necessity for repainting; and yet these emergencies appear suddenly and no complaint is heard and no effect is made to spread the cost so that the expense to each individual will be lessened.

In no relation of the human being is there any insurance covering services to be performed by others, spreading the cost of such service, or providing for unforeseen work due to accidents or conditions that may occur. To select the services of the medical profession as the lone exception is nothing but class discrimination. Insurance in all cases covers destruction of person or property, or injuries sustained, giving the insured indemnity for such events, permitting him to spend the proceeds as he sees fit. As applied to illness, such insurance should merely cover loss of time and salary, which would mean insurance as now provided by some insurance companies, or insurance by the State.

In answer to the arguments for the spread of the payment of medical costs over a prolonged period, or instead of the proposed system, I would suggest that an acceptance or financing corporation be formed for this purpose, similar to the ones created all over the country to take care of deferred payments on automobiles. Thus, instead of causing

physicians and hospitals to do the financing, such banking operations would be placed where they properly belong. As medical care must be acknowledged to be more of a necessity for human existence than an automobile, comparatively the more urgent requirement for such a plan of financing for the former is very evident.

The efforts of the altruistic medical economists and reformers should be exerted in formulating some plan by which the high-priced surgeons and specialists can be controlled in their charges, if the constitution would permit it (which is doubtful); by which the cults and patent medicine vendors could be eliminated; and in endeavoring to work out some method of reducing the overhead in hospitals, as well as combating the craze for hospitalization of every sick person, however minor his ailment may be. By concentrating on such efforts, the majority of physicians, who are charging decent, moderate fees, could be allowed to conduct their business as they always have done in the past.

It is hoped that, if it comes to a show-down and the attempt is made to force communal medicine upon us, the medical profession may arouse itself, as it should have done long ago, to the necessity of a definite, closely-knit union, making drastic provisions for its self-protection and preservation, similar to the activities of the labor unions. What the medical profession needs is a medical Gompers.

Stapleton Bldg.

## NOTES AND ABSTRACTS

### Insurance for the Doctor

WHILE the sociologists are vying with each other as to vocal and literary output in the cause of health insurance, quite a group of enterprising insurance solicitors are devising plans for health and accident insurance and selling the same by the mail-order route to unsuspecting physicians and surgeons. It is scarcely just to condemn any of these schemes without investigation, but the fact that there are so many of them floating around, and the further fact that their home offices are situated in such remote places, and again the sales technic is so reminiscent of former dubious enterprises—all these justify the warning to the physician to go slow before investing even so much as the once lowly and despised dollar. They may be all right, but there are also quite a lot of well-established and reputable

plans for carrying the health and accident casualty, that might be patronized without risk, if we are insurance-minded at this time. —*Weekly Roster and Med. Digest* (Philadelphia), Feb. 8, 1936.

### Examining Urine

ANY physician who has a microscope, a modest equipment for chemical urinalysis (which should include a phosphatometer), and the technic to use these things intelligently, should be able to add a substantial sum to his income by inaugurating a regular urinalysis service for people who consider themselves well, but many of whom, without knowing it, are on the edge of some more or less serious physical disorder, which could be prevented by timely treatment.

The National Bureau of Analysis, which



seems to be doing a thriving business, charges \$12.00 for four urinalyses a year, with a report of findings, and, of course, offers this service to laymen. Their reports do not include a phosphatometer reading, which often gives much useful information.

Here is a fence-corner that wide-awake medical men might well be reaping, to their own advantage and that of their patients.

GEO. B. LAKE, M.D.

Waukegan, Ill.

Look for **THE LEISURE HOUR** among the advertising pages at the back.

### Ten Commandments for Society

I. Thou shalt put good laws upon thy Statute Books, and none other.

II. Thou shalt have good policemen upon the beat and honest detectives upon the trail.

III. Thou shalt appoint good Judges to the Bench—those who know well the institutions to which they consign the lawbreakers.

IV. Thou shalt give fair, unprejudiced, unpolitical trials, where bribery and corruption may not be found.

V. Thou shalt not pass determinate sentences, for what man knoweth the end from the beginning.

VI. Thou shalt not kill according to Law.

VII. Thou shalt not steal the chances of the victims of circumstances, but shalt make a complete diagnosis (physical, mental, spiritual and social) of each one who may be sentenced.

VIII. Thou shalt labor more diligently towards the reformation of him or her who shall be incarcerated than towards inquisitorial punishment.

IX. Thou shalt never return into Society those who are incurably anti-social and incapable of reformation, so they may not continue to kill and to despoil and to destroy.

X. Thou shalt do always that which is just and right and good towards those who must be rehabilitated upon release from behind the stone walls and the steel bars.

OSWALD C. T. WITHROW, M.D.

Toronto, Can.

[Dr. Withrow's hobby is penal reform, and it is a fine one! Every physician should be actively interested in all sorts of communal and general social enterprises which have for their object the improvement of human conditions, and therefore, better living for himself and his loved ones. We shall be glad to hear from other doctors who are working for the good of their towns, their states, or the Nation.—Ed.]

### The Civilian Doctor's Part in a National Military Emergency\*

THE task thrust upon the shoulders of a civilian doctor in the case of modern warfare is tremendous. The moment mobilization is declared the civilian doctors should organize and have a program, similar to the following, made out:

1.—Education and cooperation of the public, as to (a) gas and bacterial warfare; (b) hygiene and prevention of communicable diseases; (c) raising the public's morale.

2.—Arranging additional hospitalization for the wounded and sick.

3.—Arranging safe, hygienic quarters as emergency homes in case of air raids or bombardments.

4.—Arranging for a quick evacuation of insane and acutely ill patients in case of military peril to the community.

5.—Stocking sufficient drug and serum supplies.

In addition to the above herculean duties, the civilian doctor would have to be further burdened by the additional patients left in his charge by his colleagues in the military service, who must, of necessity, take care of those actively engaged in the fighting units.

HENRY A. MONAT, M.C., U. S. N. R.

### BOOKS

#### Werne: Medical Jurisprudence

**CURRENT LEGAL THOUGHT.** Medical Jurisprudence. Selected Abstracts from Contemporary Medico-Legal Literature. Edited by Benjamin Werne, S.J.D., Editor-in-Chief, Current Legal Thought, Lecturer in Medical Jurisprudence, University of Newark. 245 Broadway, New York: Current Legal Thought, Inc. Published monthly. Price, \$1.50; cloth, \$2.00.

This is a well-selected collection of abstracts of articles dealing with Medicine and the Law, collected from a wide variety of authoritative sources.

The material is divided into three parts: Part I, "The Law of Medical Practice," covers the rights, duties, liabilities and responsibilities of physicians in private practice and in hospitals; medical evidence; etc. Part II, "Medical Jurisprudence," deals with admissibility of evidence; coroners and medical examiners; workmen's compensation and similar matters. Part III, "Preventive Law," discusses the various phases of criminology; eugenic sterilization and suchlike.

This should prove a valuable book of reference for physicians of all classes.

\*U. S. Nav. M. Bull., Jan., 1936.

# THE SEMINAR

## "A MONTHLY POSTGRADUATE COURSE"

(NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.)

Discussions should reach this office not later than the 5th of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, Waukegan, Ill.)

### Problem No. 3 (Surgical)

Presented by Dr. Fred D. LaRochelle,  
Springfield, Mass.

(See CLIN. MED. & SURG., Mar., 1936, page 145)

**RECAPITULATION:** In the course of an appendectomy on a man of 27 years, a mass the size of an orange was found in his cecum, but was not removed for fear of complications. His wound healed normally, except for a small fistula at the site of the drain.

About a month after the operation, the fistula began to discharge fecal matter, and, in spite of efforts to make it heal, by several physicians, continued to do so for two years, rendering the patient almost a social outcast and making him very despondent.

**Requirement:** What would you have done for this patient, and why?

Discussion by Dr. Louis Ibelli,  
Brooklyn, N. Y.

The case as stated is a real problem, for the patient has become depressed and the surgeon puzzled.

From the case presentation, it seems that the case has never been diagnosed. Was it a tumor mass? a cancer? tuberculous infection? fungus infection? or a blood dyscrasia? All of these may have been negative, but this is beside the point. Were Wassermann tests made on the blood and spinal fluid?

I doubt if the abdomen should have been closed without removing the appendix. Now, with a permanent fistula present, very little hope presents itself, and the patient feels that way.

Nevertheless, why not try physical therapy, such as ultraviolet rays, x-rays, or radium, in very small skin doses. To operate now would be folly; the result would probably be death of the patient.

In 1931 and 1932, I saw a similar case. A young man was operated upon and the appendix removed. He was improving rapidly, but the wound failed to heal and a fecal fistula developed, which remained, in spite of expectant treatment, as is found in the

ordinary run of fistulas. The man became depressed, and repeatedly asked if and when he would be well, and declared that he could not bear the condition he was in indefinitely.

In disgust, the man and his wife left town to visit a surgeon in the city, where he underwent an operation and died. What the final diagnosis was we never found out.

Therefore, it would be better, in this case, to take the *laissez-faire* attitude; encourage the patient to overcome his handicap; work out a good regulatory diet; and make him feel that life is worth while and hopeful.

Discussion by Dr. John Clark,  
Independence, Kans.

When we look back at our own practice, one can have little fault to find with Doctor La Rochelle in his handling of this case. They gave the man a routine examination. They operated for appendicitis and found a normal appendix. The only discordant fact was that a good-sized mass could be felt in the right iliac fossa.

I recall reading of a case of tumor in this region. The mass was movable. An operation was done. On opening the belly they encountered a tumor which they took for a cancer. An anastomosis was done. A number of years later the man was in good health and the tumor had disappeared.

In all cases of appendicitis there is a certain degree of swelling, together with rigidity, tenderness, and pain on palpation. If there was any question of a mass, there should have been a delay in operating until this matter was reasonably settled, because a tumor in this region, while sometimes found in appendicitis, is a relatively rare condition. Furthermore, when a tumor is found due to appendicitis, there is nausea, vomiting and usually constipation, and the tumor appears suddenly. There is tympany over the mass, and palpation reveals that the mass is fixed. Pain may radiate down the thigh. In the event that the cecum lies under the mass, there is dullness on percussion. In palpation much care should be exercised.

As the case stands, nearly two years have passed and the man is demanding that something be done, but before we do recommend a course of action, let us take a further glance at his case.

We know that he had a tumor and that the operation ended in a fecal fistula. His record shows that he has been in fair health, except during the stormy periods when his fistula did not drain. What disease will account for such a condition? Tuberculosis was mentioned in the presentation, but no clue was presented that ordinarily leads one to think of tuberculosis—no enlarged glands; no focus in some other part of the body; no fever; no particular loss of weight or strength—so we may reasonably assume that tuberculosis is out of the picture.

The outstanding suspicion of neoplasm in this case is the early fecal fistula. Against neoplasm are the periods of fair health he enjoyed between his starts and stops of drainage.

A non-inflammatory mass may become malignant at any time, so, by exclusion, an operation should be suggested to him. It should also be made clear to him that the operation carries extra hazard to his life. That operation would probably be an anastomosis, if it were possible to remove the fistula, but, in any circumstances, first an anastomosis, leaving other things to be taken care of as they arise.

#### Discussion by Dr. Oswald C. J. Withrow, Toronto, Canada

As I visualize the operation, I should have wanted to know whether the mass *within the cecum* was free or adherent to the wall of the intestine. Apparently the mass was not very large. I would venture the opinion that a diagnosis could have been made at once as to whether the mass was inflammatory or not.

From the evidence before me I cannot see why the cecum or ascending colon would need to be removed; but I believe it is a good, well-established rule that, when a surgeon enters the abdomen, he should be prepared to carry out any necessary surgical procedure then and there.

I submit that it was not the best surgery to place a drain down to what it was *hoped would prove* to be an inflammatory mass. This would seem to imply that a diagnosis could not be made from the gross, living, pathologic specimen, right in front of the surgeon. The subsequent condition of the patient is what might have been expected as a denouement to the story outlined.

I would suggest that, at the first operation, since the cecum was not adherent, it should have been lifted out of the abdomen, packed around well with gauze, and incised. If the mass were free, it could have been removed;

if adherent to the wall, it could have been drained, if inflammatory, or removed, if a new growth, and the subsequent history would have been entirely different. The appendix would have been amputated before making the incision into the cecum and, as a final gesture, a drainage tube left in the right iliac fossa.

The saddest part of the whole case is that the patient has been turned into a hypochondriac, with gradually increasing mental illness. He will probably end a suicide.

#### Discussion by Dr. E. C. Junger, Soldier, Iowa

This problem is of interest because of aroused curiosity as to what the pathosis is in this man's cecum. I feel certain that it is there, otherwise no fistula would have formed and even so, one could not keep such fistula from healing without underlying disease.

The growth in the cecum is a neoplasm, and should be removed.

No doubt all kinds of irrigations and injections of the fistula were tried by the various doctors consulted. Had drainage not been instituted at the time of operation, the fistula might have been avoided. An exploratory incision and inspection of the condition of the cecum will determine the course to be taken.

#### Solution by Dr. La Rochelle

Of course I had the advantage of having seen the mass and followed the progress of the condition and I decided to remove the lesion, whatever might happen.

On July 25, 1935, I excised the scar and fistulous tract in the abdominal wall and found my way to the cecum through dense adhesions. There was a perforation in the cecum above the ileo-cecal valve and the mass had reduced in size about half.

The ileum was severed a few inches from the valve, the cecum and ascending colon were made free from their bed, and the colon was severed well above the mass. An end-to-end anastomosis was done and the wound repaired, with two cigarette drains.

Strange to say there was very little reaction to what appeared a formidable procedure, and on August 18 he was discharged. He returned for a few dressings, when the wound healed completely. There never was any drainage of fecal matter after this operation. The patient's general health rapidly improved and today he is better than at any previous time.

The specimen was examined and turned out to be a tuberculous condition of the cecum, with a perforated ulcer. His mother recalls that he had some sort of intestinal disturbance during infancy and it may well be that the infection started at that time and ran its course over all these years.

(Continued on Page 255)

# CLINICAL NOTES and ABSTRACTS

## The Treatment of Whooping Cough

**T**HE many remedies that are at present used in the treatment of whooping cough may be divided into: vaccines, gold tribromide, and certain standard chemical and pharmaceutical preparations. A desire to evaluate these different kinds of remedies in the cure or relief of whooping cough led me to make a therapeutic study of their effect, in 45 whooping cough cases, extending over two and a half years.

The vaccine I used came from a pharmaceutical house. The gold tribromide was given in the form of an elixir called Elixir Bromaurate. The standard drugs and preparations employed were antipyrine, sodium bromide, barbitol, phenobarbital, tincture of belladonna, and camphorated tincture of opium. These drugs and pharmaceuticals were tried at various times in different combinations.

As the children came under observation, I gave the first child vaccine, the second received gold tribromide, and the third a palatable mixture made up of two or three of the pharmaceutical preparations mentioned. In this way, 15 children were treated with vaccine, 15 with Elixir Bromaurate, and 15 with some of the standard drugs or pharmaceutical preparations. Careful notes were kept on the effects of these different methods of treatment on the duration of the illness, the severity of the cough, and the frequency of the spasmodic attacks.

The results of this observation will be briefly given under the headings of the various forms of treatment. The reason for the success or failure of the different treatments will not be discussed. The aim of this therapeutic observation was to find the drug or drugs which will best serve the whooping cough patient.

**Vaccine Treatment:** Fifteen children were treated with pertussis vaccine. The average duration of the cough in these children was 11 weeks. There was no appreciable relief in the cough for almost a month.

**Gold Tribromide Treatment:** Fifteen children were treated with gold tribromide. The average duration of the cough in these children was 4.7 weeks. There was considerable relief of the coughing spasms within a week.

**Standard Drug Treatment:** Fifteen children were given various combinations of two or three of the following drugs: antipyrine, sodium bromide, barbitol, phenobarbital, camphorated tincture of opium, and tincture of belladonna, made up in a pleasant and palatable combination. Under this treatment the average duration of the cough in these children was 9.6 weeks. There was no appreciable relief in the coughing spasms for about two weeks.

### Comment

In estimating the length of time the whooping cough lasted in each group of fifteen children, care was taken to be as nearly correct as possible, but as whooping cough has an insidious onset and a slow and gradual termination, the exact date when the cough ceases is impossible to tell. From this brief outline of the comparative values of the vaccine, the gold tribromide medication, and the treatment with the usual drugs, the following estimate appears justified:

The treatment with pertussis vaccine gave relatively poor results and its employment in whooping cough therapy is of doubtful value. It has also the disadvantage that it is given hypodermically. All hypodermic medication is a source of terror to children and, when possible, should be avoided. In pediatric therapeutics, every effort should be made to administer medication by mouth, and always in an acceptable and agreeable form.

The treatment with the usual orthodox drugs, chemicals and pharmaceutical preparations gave better results than that with the vaccine. The cough under this treatment was generally milder and the duration of the illness shorter. However, one cannot feel that this treatment is entirely satisfactory.

The treatment with gold tribromide gave the best results. Within about a week the cough became considerably less frequent, the spasms much milder, and the children had more rest and sleep. The duration of the illness was shorter than with the other forms of treatment.

Since there is no specific remedy for the prevention or cure of whooping cough, the physician must rely on some drug which will reduce the period of illness and diminish the frequency and the severity of the suffocating

coughing attacks. Gold tribromide has given me the desired results. It is advisable to begin with a teaspoonful of Elixir Bromaurate every 3 hours; then lengthening the intervals to every 4 hours; then to 3 times a day; and then giving a teaspoonful twice a day until the cough entirely ceases.

JOHN LOVANSON, M.D.

New York City.

### Gastro-Intestinal Allergy\*

**G**ASTRO-INTESTINAL allergy is probably the most common cause of alimentary symptoms. Food is by far the most common cause of allergic disturbances in the alimentary tissues.

Allergic reactions in gastro-intestinal tissues probably arise most commonly through blood-borne allergens from ingested foods. Varying areas and amounts of the alimentary tissues are hypersensitized to the causative allergens, which explains the varying combinations and character of symptoms in patients affected with gastro-intestinal allergy. It is possible that such local reactions may become persistent and associated with definite mucosal and even tissue changes, comparable to those in the skin. The allergic origin of "canker sores," and probably of certain peptic ulcers, may be explained in this way.

Immediate nausea, vomiting and, less frequently, immediate diarrhea and colonic or intestinal cramping, arise either from marked contact reactivity or, more probably, from the rapid entrance of minute amounts of the specific allergens into the blood, from the oral, esophageal or gastric mucosa, and their hematogenous transmission to the cells in the areas of the alimentary tract where the marked localized sensitizations exist. If contact allergy in the mucosa is present, symptoms will not arise until the specific foods have reached the sensitized areas.

Symptoms similar to those produced by food allergy may arise from many other pathologic conditions and, before food allergy is too definitely considered as a cause of symptoms, it is most important to execute all physical and laboratory examinations, including thorough roentgen ray-studies, to rule out such pathologic conditions.

Regarding symptoms, burning of the mucous membrane of the lips, mouth, pharynx, esophagus and stomach frequently arises from food allergy. Other symptoms are coated tongue, small areas of erythema with infiltration and resulting soreness on the tongue, "canker sore" in mouth and throat, angioneurotic edema in the alimentary tract, smooth-muscle spasm, superficial erythema and congestion of the gastric tissues similar

to those of the mouth, with sometimes so-called idiopathic gastric bleeding. There are many symptoms probably caused by food allergy in the hepatic, biliary and intestinal tracts, including the appendix; colonic allergy to foods is very frequent.

The treatment is the discovery and elimination of foods that cause sensitization. A trial diet is of greater importance than skin testing. The diets should be modified by histories of food disagreements or dislikes or by definite scratch reactions to food allergens.

ALBERT H. ROWE, M.D.

Oakland, Calif.

### Suction Tonsillectomy\*

**A**SSUMING that tonsils are in need of surgical attention (and that is a decision which, in many cases, requires real study), what is the best way to deal with them?

In some cases, in adults, especially in destroying the remnants left after an incomplete surgical tonsillectomy, electro-coagulation works very well; but it is not practicable in the average child patient, and, in many cases, is certainly not "bloodless" nor free from pain, unless the structures are anesthetized.

In most cases, however, the complete removal of the tonsil by the suction-and-snare technic, which I devised some years ago, is the method of choice.† It can be used with either local or general anesthesia, and permits the quickest, most complete, and most nearly bloodless method for removing tonsils with which I am familiar. The operation can be safely performed in the office, and if done in the morning, the patient can rest in the recovery room for several hours, and go home the same evening. In fifteen years' experience, I have seen no secondary hemorrhages nor postoperative pneumonias.

J. B. H. WARING, M.D.

Wilmington, Ohio.

### Eye Injuries

**A**CINDER on the cornea is not easily removed. The eye must be anesthetized. Pantocaine, 0.5 to 1.0 percent, is the most popular anesthetic at present. Two drops, at an interval of two minutes, will usually be sufficient to allow the application of a spud. A spotlight is necessary. The technic should be acquired by instruction from a competent man.

Automobile accidents are increasing and we have many eyelids torn. Should there be a penetrating wound, an x-ray examination should always be made.

\**Med. World*, Apr., 1936

†This technic is described in detail, in Dr. Waring's article which appeared in *CLIN. MED. & SURG.* for October, 1931, page 722.—Ed.

\**J. Lancet*, Mar. 1, 1936



Burns due to tear gas should be treated first by large quantities of tap water, followed by 0.4-percent sodium sulphite in glycerine, 75 percent, and water, 25 percent.—**DR. THOMAS D. ALLEN**, of Chicago, in *Ill. M. J.*, Mar., 1936.

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### Alkaline Therapy in Nephritis

**W**ITHIN recent years serious consideration has been given to the subject of body fluids and their hydrogen-ion concentration. There is a very close relationship between the acid-base balance of body fluids and health. During health there is a slight alkalinity, and when disease supervenes there is a shifting towards the acid side.

By acidosis is understood a condition in which the carbonic acid-bicarbonate ratio of 1:20 is increased to such a degree that the resulting traction is greater than 1/20. When, however, the buffers of the body are capable of neutralizing the excess acid, so that no change in acidity is produced, the condition is called compensated acidosis; but if the acidity is too great for the buffers to neutralize, uncompensated acidosis is the result, and the physician must use appropriate measures to overcome it.

All the changes that characterize nephritis are colloid-chemical in nature and due to a common cause—the abnormal production or accumulation of acids and of substances which, in their action upon colloids, behave like acids, in the cells of the kidney. To the action of these upon the colloid structures of the kidney are due the albuminuria, the specific morphologic changes noted, the associated production of casts, the quantitative variations in the amount of urine and in the amounts of dissolved substances secreted, as well as the other signs of nephritis which appear in direct connection with the kidneys.

Fischer is of the opinion that, by increasing the alkali and salt content of the body, the chances for the development of the signs of nephritis are greatly reduced. In addition to diet in the treatment of nephritis, it is desirable that alkaline therapy also be instituted.

The effect of a course of alkaline therapy in the acidosis of nephritis is known to last for a comparatively long time—even weeks or months. Thus, in general, it would seem plausible to make a practice of giving sufficient alkali, by mouth, to bring the urine to a reaction that is neutral or alkaline to litmus.

Of course, it is not advisable to keep the urine in a perpetual state of alkalinity. It is logical to assume that the maintenance of the carbonate content of the body at its normal level will not have any unfavorable effect. The administration of alkalis is not attended

by danger or disadvantage. The replacement of alkalis in acidosis is a necessary step, corresponding to the maintenance of a proper supply of food and liquid. It should be remembered that the loss of carbonates is accompanied by a simultaneous depletion of calcium, sodium, magnesium and potassium. In treatment, the tendency is to replace only the sodium and the carbonates. Perhaps some of the symptoms are due to the loss of calcium, magnesium and potassium salts.

In nephritis, according to the studies of Fischer<sup>1</sup>, acidosis helps to maintain edema. In consequence of circulatory disturbances, an accumulation of carbonic, lactic and other acids occurs, which increases the hydration capacity of the colloids of the involved tissues and because of which they then suck water out of the blood and lymph streams bathing them.

It has been my practice to employ alkalis in all cases of nephritis, in addition to other measures. In this way I have been able to avoid some of the more unpleasant complications.

In nephritis, alkaline therapy is of definite value in (1) neutralizing the acid bodies; (2) controlling the desire for fluids and thus preventing hydration of the tissues, with the subsequent production of edema; (3) supplying the basic inorganic minerals—sodium, potassium, calcium and magnesium. A proper alkaline mixture should have these elements in sufficient quantities to replenish those drained off.

The choice of the proper alkaline agent is a matter for deep consideration. Giving massive doses of sodium bicarbonate creates gastric distress and in time sets up an alkalosis, which is just as disastrous as acidosis. An alkali containing calcium, potassium and magnesium, in addition to sodium, is necessary. I have used Entacarb tablets, giving three four times a day, for prolonged periods without any untoward effects. Being enteric-coated, the full alkalizing effects are obtained with no gastric upset due to neutralization of the gastric juices. It also contains the four basic elements to replenish the ions lost.

EDWARD PODOLSKY, M.D.

Brooklyn, N. Y.

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### Allergy and Migraine

**P**ERIODIC headache, due to the ingestion of specific foods, is a relatively common phenomenon. It is said that seven percent of the population suffers at one time or another from headaches clearly attributable to specific foods. I believe that some of the failures of certain investigators to achieve satisfactory relief in the treatment of migraine

1.—Fischer, M. F.: "Edema and Nephritis." 2nd Edition, 1915.

as an allergic phenomenon are due to failure to realize that there is much more to the allergic study than merely the application of skin testing. For best results, not only must the diagnostic study be complete and exhaustive but, in addition, the patient must be followed very closely for many months and controlled as adequately as possible. He should be tested for both inhalant and ingestive sensitiveness.—WARREN T. VAUGHAN, M.D., in *Journ.-Lancet*, Mar. 1, 1936.

### Indications for Oleothorax\*

**T**HE principal actions of oil blockage are mechanical, irritative and antiseptic.

1.—*Antisymphysis*: When the collapsed lung reexpands prematurely, that is, before the disease process for which pneumothorax has been given has healed, all the benefit previously gained is threatened. When the lung attaches itself to the diaphragm, creeps out along it and begins to ascend the thoracic wall, even increased intrapleural gas pressures may not prevent further unfolding of the organ. Usually the tuberculous lesions are in the upper third of the lung; before this portion has reexpanded and while there is still a good selective collapse of this diseased part, only the base being attached to the parietal wall, the gas in the pneumothorax pocket may advantageously be replaced with plain paraffin oil.

2.—*Compressive*: Adhesions may act as guy-ropes, pulling on a relaxed lung and preventing collapse of a cavity. If it is impossible to sever the adhesions or to stretch them out by increasing gas pressures, oleothorax or thoracoplasty must be considered. The latter may be impossible on account of the state of the opposite lung or the general condition of the patient. If the cavity is not too peripheral and if oil pressure can be exerted on the lung surrounding it, the pleural pocket is filled with oil and by repeated injections its pressure is gradually increased in an effort to close the cavity. When the cavity-bearing apex is widely and diffusely adherent, little good can be expected; but if the oleothorax is anterior, the lung being squeezed into the posterior gutter, the chances of success are improved.

Some think that oil under pressure is too great a hazard because, if a large amount should burst into the lung, it might cause suffocation or oil pneumonia. Under the circumstances mentioned above, i. e., an ineffective pneumothorax and surgical means contraindicated or impossible, and with the cavity not too peripheral, oleothorax is indicated. Kuss thinks that high oil pressure is less dangerous than the fluctuating of hypertensive pneumothorax.

3.—*Antiseptic*: When tuberculous empyema develops and the pus continues to reform in spite of repeated aspirations and irrigations of the pleural sac, the remarkable drying-up action of oleothorax is most satisfactory. Pleural lavage should always be tried first. When the empyema is causing grave symptoms, oil has a definite detoxifying action, an effect not unexpected after Clerc's experiments on the neutralizing action of gomenolized oil on various exotoxins, the blocking of lymphatics and its inhibitory action on acid-fast organisms. Even if the pus reforms, the improvement in the patient's condition may prepare him for collapsing operations which he could never withstand during the early period of grave tuberculous empyema. Dumarest and Bernou warn that oleothorax is contraindicated in malignant tuberculous pyothorax, because little benefit can be expected and time is lost before more radical operations. Some patients have been cured, nevertheless. Primary tuberculous empyema; i. e., occurring without previous therapeutic pneumothorax, yields very excellent results with this treatment. Some cases of mixed infection by tubercle bacilli and other organisms have been cured with oleothorax, but better antiseptics are available; if oleothorax is employed, the use of 20-percent gomenol in oil is recommended.

4.—Sometimes after sufficiently prolonged pneumothorax, the lung has become so fibrous or is so bound by an unyielding pleura that it will not reexpand. If air refills are stopped, the lung is drawn toward the thoracic wall, which becomes greatly retracted and the mediastinal organs are drawn over and perhaps twisted. Circulatory symptoms and pain or discomfort from the increased negative pressure sometimes result. The onset of this distress becomes evident before the lung has reached the chest wall. To correct this the operator may choose permanent pneumothorax, oleothorax or thoracoplasty. In some cases oleothorax is best.

5.—*Bronchopleural Fistula*: If the perforation is large, or low in the pleural cavity, oleothorax is contraindicated. In fact, many operators refuse oil treatment to any fistulous patient. The best indication is said to be suffocating pneumothorax with valvular fistula if attacks recur. Bernou well expresses the limitations of the use of oleothorax in pulmonary perforation and advises against it when a number of adhesions hold the cavity open, when the perforation connects a cavity with the pleural space, or when the pleura is thick and the parenchyma dense. He admits its usefulness when the pleura is supple and free of adhesions and the lung perfectly compressible. These conditions must seldom occur except when pulmonary perforation is

\*Ann. Int. Med., Dec., 1935.

due to a needle wound, which nearly always heals unaided. Some successes have been reported when the opening through pleura into lung is minute and intermittent. A very good estimation of its size can be made from various signs. The pleural cavity is not filled with oil, as in the conditions mentioned earlier, but the oil level is kept below the level of the fistula, as determined by the usual position of the patient.

6.—**Mediastinal Relaxation:** This may interfere with collapse of a pulmonary cavity and can be corrected by instilling a small amount of oil, which usually causes a pleural exudate with resultant thickening and fixation of the yielding membrane. Air pressures are then exerted against the lung rather than against a mobile mediastinum.

J. N. HAYES, M.D.

Saranac Lake, N. Y.

### Tincture of Mercuric Chloride for Skin Disinfection

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Hydrochloric acid .....	7.50 Gm.
Acetone .....	100.00 cc.
Alcohol .....	525.00 cc.
Distilled water, to make.....	1000.00 cc.

After clinical trial, surgeons report no infections after its use.—**DRS. J. A. VAICHULIS** and **L. ARNOLD**, in *Surg., Gyn. and Obst.*, Sept., 1935.

### Hyperparathyroidism

**STUDIES** by Drs. R. Leriche and A. Jung, reported in *Presse Méd.* for Aug. 31, 1935, indicated that **scleroderma** is preceded by changes in the parathyroid gland and then in the bones, and accompanied by irregularities of the blood calcium. They have produced scleroderma-like lesions in young rats by injecting parathyroid hormone. Their conclusion is that this disease results from hyperparathyroidism.

In *Am. J. Med. Sc.* for Jan., 1934, Albright, Baird, Cope and Bloomberg called attention to the fact that, in cases of **urolithiasis**, the patients present many of the signs and symptoms of hyperparathyroidism; and Albright and Bloomberg, in *J. Urol.* for July, 1935, reported finding, in the urine of patients with hyperparathyroidism, calcium casts, which are essentially calculi formed in the renal

tubules, and which disappear after parathyroidectomy.

### Phenolphthalein a Harmless Laxative\*

**PHENOLPHTHALEIN** has established itself as a useful laxative. Its effect is limited to the intestinal tract. It is listed in every pharmacopeia and mentioned in various medical texts, and in none is it classed as a poisonous drug. When one compares the few "reactions" reported from its use with the countless instances in which the drug is used without any ill effects, such "reactions" must be considered as mostly pure coincidences. No one should take such reports of ill effects seriously, unless they are unqualifiedly proved.

A study of the records of a death, supposed to be due to an overdose of phenolphthalein, reported by Cleaves in the *J. A. M. A.* for Aug. 20, 1932, shows that the evidence submitted is of the *post hoc ergo propter hoc* kind, and is therefore open to the just criticism that all such reports merit. The findings in this case suggest that the boy died of a severe infection or toxicosis, the latent period of which happened to coincide with the taking of a very large dose of "Ex-Lax" tablets.

The statement, made by Dr. F. J. Cullen, formerly director of the Federal Food and Drug Administration at Washington, to the effect that phenolphthalein has an injurious effect on the liver, has no foundation in fact. It may well be that Dr. Cullen, who, with good motives, seems to have declared war on this drug, has confounded phenolphthalein with its halogen compounds (such as tetraiodophenolphthalein), which are used in roentgenologic diagnosis and which are entirely different from the drug itself.

Certain individuals appear to have an idiosyncratic hypersensitiveness to phenolphthalein, manifesting itself in the form of mild skin eruptions, but these reactions are so rare as to be medical curiosities, having no more significance than similar reactions which sometimes appear after the ingestion of or contact with berries, lobster, sweet cream, horse hair, chicken feathers, etc., or the use of such valuable drugs as bromides, digitalis, ipecac, etc.

The many publications which have approved the use of phenolphthalein, on the basis of innumerable and careful clinical observations, support my contention that this drug is harmless.

PROF. ZOLTAN V. VAMOSSY,  
Director, Pharmacologic Institute,  
Royal Hungarian University.  
Budapest, Hungary.

\**A. J. Digest. Dis. and Nutrition*, Mar., 1936.

### An Unusual Injury\*

THE patient here reported was stabbed with a penknife in the middle of the forehead, as shown in Fig. 1. The knife was pushed in to



Courtesy, Eastman Kodak Co.

Fig. 1.—Showing the knife in place.

the hilt, penetrating the frontal bone and the frontal lobe of the brain, as shown in Fig. 2.

Enormous force was required to remove the weapon from the wound. The patient was placed on the floor and held there by two men; it took the strength of two other muscular men, with the aid of heavy pliers, to pull out the knife.

The patient did not experience any pain or discomfort, from the time of the stabbing until recovery, and remained in the hospital only twenty-four hours.

JAMES W. McCLARAN,  
M.D., F.A.C.S.

Jackson, Tenn.



Courtesy, Eastman Kodak Co.

Fig. 2.—Roentgenogram showing penetration of the knife blade.

### Acute Appendicitis in Childhood

IT is much more difficult to diagnose acute appendicitis in childhood than in adult life. While the differential diagnosis is really sim-

pler in children, because there are fewer conditions to eliminate, the ultimate diagnosis is much more difficult, on account of the failure to get an adequate history from the child. Many children with appendicitis obscure their symptoms by their conduct. The so-called appendicitis triad of abdominal pain, nausea and tenderness, is very frequently absent in cases of acute appendicitis in childhood. Many such cases are ushered in with pneumonia-like symptoms of high fever, rapid breathing, fast pulse, etc.; others have quite different symptoms. In the examination of any child one should always keep in mind the possibility of this treacherous and highly fatal disease regardless of the symptoms present. Distrust of the inflamed appendix is the only safe surgical frame of mind.—DR. STANLEY H. SKRENTNY, of Hammond, Ind., in *J. Indiana M.A.*, Mar. 1, 1936.

### "Excuse it Please!"

SOME of our readers may have been puzzled over Fig. 2 in Dr. Doane's article, which appeared in the March, 1936, issue of "C.M.&S.," on page 125—and that puzzlement is now explained.

Dr. Doane writes us that, through some

\**Radiography and Clinical Photography*, Mar., 1936.

error in furnishing us the cuts for illustrating his article, the one for Fig. 2 shows the technic of electrocoagulating the right tonsil, instead of adenoids, as stated in the legend under that picture.—Ed.

Look for THE LEISURE HOUR among the advertising pages at the back.

### An Improved Anesthetic Technic for General Surgery\*

IN some recent studies, various combinations of analgesic and anesthetic drugs were used, with a view of attempting to improve on the present surgical anesthetic technic, first, by abolishing psychic influence before operation; second, by securing a better brain block and greater relaxation during operation; and third, by diminishing gas and wound pain after operation. The procedure as evolved was carried on more or less completely in over 300 patients.

The final technic is to give a dose of a barbiturate about two hours before the operation; then, one hour before the operation, inject, intramuscularly, 1/48 grain (1.4 mg.) of Dilauid in 2 cc. of a 25-percent solution of magnesium sulphate, repeating in 15 minutes. After the second dose the patient is turned on the left side and a retention enema of ether, 2½ ounces (75 cc.); olive oil, 1½ ounces (45 cc.); and chlorbutanol, 10 grains (0.65 Gm.) is given. Up until this time no expert attention is necessary, and quiet sleep is converted into surgical anesthesia and relaxation with an open mask, nitrous oxide (or ethylene) and oxygen being used—15 to 50 percent, to which a 5-percent vapor of ether may be added, if necessary.

The physiologic balance between respiration and circulation is retained, with the respiratory and circulatory rates normal. The patient is in good condition at all times and relaxation is second only to that obtained by spinal anesthesia and, in some cases, was equally good. The long, quiet sleep after the operation is restful and life-saving, enabling the tissues to resume their normal relationship without painful reaction. With this method and technic, the convalescence of the patient starts on the operating table, and this is as it should be.

The synergism of magnesium sulphate with Dilauid is even more striking than that with morphine. The dose of Dilauid was decreased and its effect was prolonged and, in a vast majority of cases, patients awoke without pain, nausea or vomiting. Ether vomiting is a thing of the past.

A definite prolongation of the effect of Dilauid is made by the addition of a 25-

percent solution of magnesium sulphate, and a small amount of ether counteracts the depressing effect of the Dilauid-magnesium solution on the respiratory center.

Comfortable relaxation, with less shock and greater postoperative comfort, occurs more uniformly with this technic than with any procedure heretofore used.

DRS. W. F. FRASER AND J. T. GWATHMEY.  
New York City.

### The Seminar

(Continued from Page 248)

#### Problem No. 5 (Medical)

Presented by Dr. J. J. Bunn,  
Mt. Pleasant, N. C.

THE patient is a well-developed, strong blond man of 50 years; a flour miller; height, 6 feet; weight, 240 pounds. His past and family history appear to be without significance, and he has never been seriously ill. His habits are regular, except for the occasional overuse of alcohol. Physical examination revealed nothing except a systolic cardiac murmur at the second left intercostal space.

About four or five times a year he goes on a "spree," lasting from three or four days to a week, and while drunk he suffers from orthopnea, but has no difficulty in breathing when sober. This condition has always been relieved by a dose of ½ grain (32 mg.) of morphine.

I was called to see him on the evening of February 18, in one of these attacks, and the usual dose of morphine relieved him in a short time; but about twenty minutes later he asked for something to make him sleep, so I gave him 3 grains (0.2 Gm.) of Nembutal, which put him to sleep in about twenty minutes, after which I left him.

About half an hour later, a neighbor called me, stating that the patient's pulse rate was 130 and that he was "black in the face." I returned to him at once and found him deeply cyanotic; pulse, 108; respirations somewhat irregular; sweating freely. I gave him 1/60 grain (1 mg.) of atropine sulphate and 1.5 cc. of Coramine, hypodermically, and opened the window. In a short time his pulse became practically normal, but the cyanosis did not clear up entirely until five o'clock the next morning, when he was feeling well, except for extreme nervousness.

**Requirements:**—What was the cause of the orthopnea? Of the cyanosis and tachycardia? If he had died, what would you have put on his death certificate? Comment on the treatment given and state how you would have treated this case.

\*Surg. Gynec. & Obst., Feb. 17, 1936.



# THUMBNAIL THERAPEUTICS

## Parents' Blood to Prevent Poliomyelitis

IF a child has been exposed to poliomyelitis, it is well to give it 60 cc. of whole blood, from one or both parents, intramuscularly, 30 cc. in each buttock. The blood is drawn into a syringe containing 2 cc. of a sterile 10-percent solution of sodium citrate and injected immediately. The immunity lasts from two to four weeks, after which the injection may be repeated, if danger is still present.—Dr. J. STOKES, *et al*, in *A. J. Dis. Child.*, Sept., 1935.

## Neurolysis in Asthma

NEUROLYSIS of the bronchial sympathetic nerves by injections of absolute alcohol has resulted in complete relief in 75 percent of 23 cases of long-standing and intractable asthma, and partial relief in the rest of the cases.—Dr. G. L. L. LEVIN, in *Ann. Surg.*, Aug., 1935.

## Benzedrine in Narcolepsy

BENZEDRINE is structurally related to both ephedrine and epinephrin. In 9 narcoleptic patients, carefully observed, it was found that benzedrine was three times as effective as ephedrine in relieving the symptoms. In all cases the sleep attacks were completely relieved and the cataplexy almost completely relieved by doses of from 10 to 90 mg. of the drug daily, given in three doses.—Drs. PRINZMETAL AND BLOOMBERG, in *J. A. M. A.*, Dec. 21, 1935.

## Pulmonary Collapse in Lobar Pneumonia

IF pulmonary collapse is to produce artificial crisis in lobar pneumonia (which is its only legitimate purpose), the pleura must be clear or nearly so. Pleural adhesions interfere seriously.

The death rate is about the same as under other forms of treatment, but the morbidity and complications are much less. Collapse therapy should not be used in children or in bronchopneumonia, and is not effective in lobar pneumonia after the third day. Its use should be reserved for unilateral cases. It can be used successfully in about 50 percent of cases.—Drs. S. S. LEOPOLD AND L. M. LIEBERMAN, Philadelphia.

## Diet

THE wisest and happiest course to pursue is to eat what your fancy dictates. Choose a wide variety; do not gorge; do not eat so much sweet or starchy food that your appetite will reject the more important elements; and above all, *enjoy what you eat!* Do not "go on" any special diet, except on the advice and under the guidance of a competent physician.

If the average American approaches the subject with a healthy mental attitude and is reasonably temperate in his choice of excellent foods, of which there is a wide variety, he can hardly go wrong.—Dr. GERSHOM DOWNS, in *Scriber's Mag.*, Feb., 1936.

## Nephrosis in Children

IN nephrosis with generalized edema, in children, the heavy losses of blood proteins (albumin) in the urine call for a high-protein diet, rest and warmth. Blood transfusion and acacia solution, intravenously, may help. There is a tendency to recover.—Dr. ISAAC ABT, Chicago.

## Control of Myopia

MYOPIA is caused and increased by close eye work, and arises, not from use of accommodation, but from excessive convergence. At all ages, the constant wearing of full correction stops the increase of myopia, in a large majority of cases, and improves the nutrition of the eyes, giving better vision even when the myopia continues to increase.—Dr. EDWARD JACKSON, Denver, Colo.

## Fever Therapy in Chorea

THERAPEUTIC fever, produced by the intravenous injection of "triple typhoid" vaccine (500,000,000 typhoid bacilli and 250,000,000 each of paratyphoid A and B, per cc.), beginning with 0.15 or 0.2 cc. and increasing 0.1 cc. daily for six or seven days, has produced definite benefit in a majority of cases of chorea, including those showing inactive heart disease and even active carditis. In fact, two cases of subacute rheumatic carditis without chorea were improved by therapeutic fever produced by radiant energy.—Drs. L. SUTTON and K. G. DODGE, in *J. Pediat.*, April, 1935.

## NEW BOOKS

Any book reviewed in these columns will be procured for our readers if the order, addressed to **CLINICAL MEDICINE AND SURGERY**, Medical & Dental Arts Bldg., Waukegan, Ill., is accompanied by a check for the published price of the book.

*Many times the reading of a book has made the future of a man.*—EMERSON.

### Dutton and Lake: Parenteral Therapy

**PARENTERAL THERAPY.** A Ready Reference Manual of Extra-Oral Medication for Physicians, Dentists, Pharmacists, Chemists, Biologists, Nurses, Medical Students and Veterinarians. By Walton Forest Dutton, M.D., Formerly Medical Director, Polyclinic and Medico-Chirurgical Hospitals Graduate School of Medicine, University of Pennsylvania; Visiting Physician to the Northwest Texas Hospital; Visiting Physician to St. Anthony's Sanitarium; Director, Medical Research Laboratories, Amarillo, Texas; Colonel, Medical Officers' Reserve Corps, U. S. A., etc.; and George Burt Lake, M.D., Formerly Special Lecturer in Hygiene, Purdue University; Editor, *Clinical Medicine and Surgery*; Associate, American College of Physicians; Educational Lecturer, Illinois State Medical Association; Colonel, Medical Officers' Reserve Corps, U. S. A., etc. Illustrated with 90 Half-Tones and Line Engravings. Springfield and Baltimore: Charles C Thomas. 1936. Price, \$7.50.

The development, within the past generation, of many serums, vaccines, endocrine extracts, and other biological products, as well as of many powerful drugs which can safely be injected into human and animal bodies, has resulted in the steady and rapid growth of the importance and applications of the various parenteral routes for the administration of medicaments. A vast literature in this field has grown up, in the professional periodicals, and all modern medical textbooks deal with certain phases of these methods, but hitherto the practical, clinical facts have not been gathered together in one volume, for concentrated study and ready reference.

This handbook, which contains all the information which a physician needs to carry out parenteral therapy successfully, is divided into three parts:

Part I, consisting of thirty chapters, gives full and explicit details of all the various technics of parenteral medication—intradermal, hypodermic, intravenous, intraspinal, intraventricular, and other types of injections; intravenous, caudal, infiltration, and inhalation anesthesia; alcohol injections for nerve blocking; ionization; blood transfusion; the injection treatment of hemorrhoids, varicose veins, and hernias; and a number of other technics—all illustrated with practical pictures of apparatus, positions, etc. The chap-

ter on local injections of lipiodol for the treatment of muscle pains should, by itself, pay for the book many times over. Throughout these chapters, the intelligent use of bold-face type makes reference easy.

In Part II, the diseases amenable to treatment by parenteral methods are listed alphabetically, and under each disease there is a list of the drugs which may be used by these methods in its treatment.

Part III deals with the drugs which may safely be used parenterally, with an index of all such drugs, including the various names by which they are called, and a working description of each drug—its chemical nature, preparations, sources of supply, physiologic action, therapeutic uses, and dosage. An appendix lists and describes many of the newest drugs which are used in this manner, in order to bring the information down to date. An alphabetic list of the pharmaceutical houses which manufacture medicaments for parenteral use, with their addresses, has been added, for the convenience of readers.

A carefully prepared index of the technical chapters closes the volume, the mechanical features of which—paper, typography, and binding—are up to the usual high Thomas standard.

Here is a book which should be on the desk of every clinician, either general practitioner or specialist, and of every dentist, medical student, nurse, and all who are concerned with the care of the sick, for regular daily reference and constant study. It is easy to read, easy to refer to, and contains an astonishing amount of information which is needed every day and cannot readily be found elsewhere. No physician can afford to deny himself the help which this indispensable volume will give him; and those who use it systematically should soon notice a marked improvement in their professional ability and prestige and in their fiduciary status.

### Wiener: Blood Groups and Transfusion

**BLOOD GROUPS AND BLOOD TRANSFUSION.** By Alexander S. Wiener, A.B., M.D. Springfield and Baltimore: Charles C Thomas. 1935. Price, \$4.00.

All important known facts concerning in-

dividual differences of the blood, particularly in human beings, and the application of this knowledge in biology, and in clinical and forensic medicine, are included in this broad, critical and up-to-date presentation.

All the latest advances, such as the more recently discovered individual differences in human blood, particularly M and N, are covered. The best accepted procedures as to technic are described with thoroughness. The section on transfusion is highly informative and authoritative. The medicolegal applications are clearly presented.

This is a highly technical work, which is likely to be mostly "over the head" of the average general clinician, but with whose contents all those who are doing blood grouping or blood transfusion, as well as all research workers in this field, should be familiar.

### Durham: Hay Fever

**YOUR HAY FEVER.** By Oren C. Durham, Chief Botanist, Abbott Laboratories, North Chicago, Illinois. With an Introduction by Morris Fishbein and a Chapter on Treatment by Samuel M. Feinberg, M.D., F.A.C.P. Indianapolis and New York: The Bobbs-Merrill Company. 1936. Price, \$2.00.

About two percent of the people in the United States suffer from hay fever, even though nobody appears to die of it. It is not a fever and hay has almost nothing to do with it. To most laymen it is a mystery.

Here is a detective story, written in a pleasing and colloquial style which any high school student can understand and enjoy, by the outstanding authority on pollens in this country, outlining the history of this disease of civilization and telling the fascinating story of the scientific sleuthing which was required to discover the villain who was causing so much misery. The intimate life stories of the plants whose pollens produce hay fever are told in detail, with maps of their habitats and time schedules of the appearance of their pollens. The technic of pollen counting is fully described and, especially, the mechanism of and the reasons for the use of pollen extracts for desensitization.

This is a book which most physicians can read with much pleasure and profit, and can give, loan, or recommend to their hay fever patients, with the assurance that the information they will get from it will make them cooperate more intelligently in their treatment.

### Landsteiner: Serologic Reactions

**THE SPECIFICITY OF SEROLOGICAL REACTIONS.** By Karl Landsteiner, M.D., The Rockefeller Institute for Medical Research, New York. Springfield and Baltimore: Charles C Thomas. 1936. Price, \$4.00.

In the preparation of this review it was the author's intention to give an account of the experiments on antigens and serologic reactions with simple compounds, and to discuss

the phenomena of serologic specificity, not yet fully explained. It is chiefly the chemical aspects of the immunologic reactions that have been considered, and the material was selected according to its bearing upon basic questions. Within these limits the writer has attempted to include the salient facts and to offer a bibliography comprehensive enough for the use of workers in the field. Explanations of elementary concepts and phenomena of serology are provided for readers not acquainted with the subject.

This is a highly technical manual, source-book and bibliography for research workers in and deep students of immunology.

### Lord and Heffron: Serum Therapy in Pneumonia

**LOBAR PNEUMONIA AND SERUM THERAPY.** With Special Reference to the Massachusetts Pneumonia Study. By Frederick T. Lord, M.D., Clinical Professor of Medicine, Emeritus, Harvard Medical School; Member of the Board of Consultation, Massachusetts General Hospital, etc.; and Roderick Heffron, M.D., Field Director, Pneumonia Study and Service, Massachusetts Department of Public Health. New York: The Commonwealth Fund; London: Humphrey Milford: Oxford University Press. 1936. Price, \$1.00.

This handbook discusses fully the use of antipneumococcal serum in the treatment of lobar pneumonia, with special attention to clinical diagnosis, selection of cases for serum treatment, identification of pneumococcus type, technic of administering the serum, precautions to be observed, possible reactions and their treatment, and results of serum therapy.

Recent experience has shown that serum can be given advantageously by general practitioners in the home, under the conditions set forth in this book, and the modest price puts it within the reach of every internist and general clinician.

### Lake: The Foot

**THE FOOT.** By Norman C. Lake, M.D., M.S., D.Sc. (Lon.), F.R.C.S. (Eng.), Senior Surgeon and Lecturer on Surgery, Charing Cross Hospital; Surgeon, Bolingbroke Hospital; Director of Studies, London Foot Hospital; External Examiner in Surgery, Victoria University, Manchester; Late Senior Examiner in Surgery, University of London. Baltimore: William Wood and Company. 1935. Price, \$4.50.

Many physicians are hard up because they are not reaping the fencecorners of the fields of their practices. One of these neglected possibilities is the care of diseases of the feet, which is proving highly profitable to podiatrists and other non-medical "foot specialists."

Here is a slightly and well-made volume which will give the general practitioner all the information he needs to add several

hundred dollars a year to his income by giving the foot disorders of his patients scientific and successful attention.

### Hutchinson: Medical Proverbs

**FOR AND AGAINST DOCTORS.** By Robert Hutchinson and G. M. Wauchope. Baltimore: William Wood & Company. 1935. Price, \$2.00.

Here is a little volume that should prove amusing and interesting to every one in the medical profession. It is a collection of proverbs, poems, and sayings chronologically arranged and, as indicated in the title, containing both those for and against the doctor. The library of every medical man should contain a copy of this anthology that is so full of morsels of wit and philosophy.

J. R. C.

### Bray: Clinical Laboratory Methods

**SYNOPSIS OF CLINICAL LABORATORY METHODS.** By W. E. Bray, B.A., M.D., Professor of Clinical Pathology, University of Virginia; Director of Clinical Laboratories, University of Virginia Hospital. Thirty-two Text Illustrations. Eleven Color Plates. St. Louis: C. V. Mosby Company. 1936. Price, \$3.75.

This handy volume is the outgrowth of the author's long experience in teaching clinical diagnosis to medical students and in teaching and supervising clinical laboratory technicians. It gives the practical details of urinalysis, hematology, blood chemistry, bacteriology and other routine laboratory procedures. This information is given in concise form available for ready reference.

Besides its great value to the medical student and technician, those physicians who carry out their own clinical laboratory tests will find this an excellent little handbook for immediate consultation. There is an ample and well-arranged index.

### International Clinics

**INTERNATIONAL CLINICS.** A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest. By Leading Members of the Medical Profession Throughout the World. Edited by Louis Hamman, M.D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Md. Volume I. Forty-Sixth Series, 1936. Philadelphia, Montreal, London: J. B. Lippincott Company. 1936. Price, \$3.00.

The March, 1936, number of "International Clinics" contains twelve contributions to clinical medicine and surgery, besides reviews of recent advances as reflected in the general literature.

The general practitioner will find the following papers to be especially interesting: "Fever in Heart Disease," by Dr. J. Murray

Steele, of New York; "The Indications and Dangers of Sedatives and Hypnotics," by Dr. Soma Weiss, of Boston; "Pulmonary Embolism," by Drs. D. J. Frick and L. T. Bullock, of Los Angeles; "The Treatment of General Paresis with Stovarsol," by Drs. A. Sezary and A. Barbe, of Paris, France; and "Portal Hypertension (Hepatic Decompensation)" by Dr. Samuel Weiss, of New York City.

All the contributions are in accord with the high standards established by this first-class serial.

### Singer: Fasciae

**FASCIAE OF THE HUMAN BODY AND THEIR RELATIONS TO THE ORGANS THEY ENVELOP.** By Edward Singer, M.D., Department of Anatomy, College of Physicians and Surgeons, Columbia University. With 24 Original Illustrations by Elizabeth B. Cuzzort. Baltimore: Williams & Wilkins Company. 1935. Price, \$3.00.

The fasciae of the human body are a badly neglected section of anatomy, though they are often as important, clinically, as the organs they envelop. They exert pressure on swellings, guide the wanderings of burrowing pus and foreign bodies, and perform other interesting functions.

This thin volume presents the results of special methods of dissection, and gives more details and illustrations of the fasciae than will be found in any textbook of anatomy. It will be of great value to students and others doing dissection work, and to surgeons of all types and degrees.

### Christopher: Surgery

**A TEXTBOOK OF SURGERY.** By American Authors. Edited by Frederick Christopher, B.S., M.D., F.A.C.S., Associate Professor of Surgery at Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital. With 1349 Illustrations on 730 Figures. Philadelphia and London: W. B. Saunders Company. 1936. Price, \$10.00.

Practically every practicing physician needs a textbook of surgery, and of course it is a great advantage to have such a work as authoritative and up-to-date as is possible. Moreover the subject is so broad that unless its presentation is to occupy several volumes, the utmost brevity which is consistent with clarity and completeness is called for.

This new book meets these requirements excellently. Its authority is vouched for by the professional standing of its 184 eminent contributors; it is as up-to-date as is possible with so extensive a publication; the presentation is as concise as is practicable, and the text is amply supplied with helpful illustrations, so that it will be of genuine service, not only to surgeons but also to general practitioners and students; each chapter is furnished with a good working bibliography; and the index occupies 39 three column pages of small type.



Mechanically the book is a credit to the publisher. The paper in a single volume of 1,600 pages must be thin, but this is satisfactorily opaque. The type is thoroughly readable. The binding is substantial.

This is not a handbook of shortcuts, for quick reference in an emergency, but a basic text and reference work such as every physician must have at his disposal if he is to keep himself fully abreast of the development of his profession. The price is reasonable for such a volume.

### Medical Memoranda

**MERCK MEDICAL MEMORANDA.** A Reference Service for the Physician. By Bernard Fantus, M.D., Professor of Materia Medica, Pharmacology, and Therapeutics, College of Medicine, University of Illinois, etc., Editor-in-Chief, with a Selected Staff of Collaborators. Consists of 25 Monthly Subject Cards (Size 4" x 6") on the Latest Advances, Findings, and Opinions of Contemporaneous Medical Literature. Rahway, N.J.: Merck & Company, Inc. Subscription price, \$3.00 per year.

As important medical contributions have no territorial limitations, the Merck Medical Memoranda obviously offer an unusual opportunity for the busy physician to acquire local as well as international information on contemporaneous medical problems.

Neither Dr. Fantus and his editorial staff, nor the sponsors, Merck & Co., Inc., require introduction. This, together with the publications from which the Memoranda are prepared, represents a combination which justifies the use of this service by busy and progressive physicians.

### Guy: Chemistry in Therapeutics

**CHEMISTRY IN THERAPEUTICS.** By Walter B. Guy, M.D., St. Augustine, Florida. Philadelphia: W. Roy Huntsman. 1935. Price, \$3.00.

This book is an honest attempt to solve the mystery of the fundamental cause or causes of disease. It is a continuation of the author's previous book, "Hydrochloric Acid and Mineral Therapy." These works are the fruits of many years of observation, research and study of clinical results. The views of the author, in regard to the nature of disease and its ramifications in the animal cellular system, as expressed in his book, are matters of philosophic import upon which opinions will, of course, differ and which cannot be entered into here. Suffice it to say that the broad conception is that many forms of disease are due to stagnation of the lymph flow and disturbances in its chemical composition. One of the main objectives in the author's therapeutic system is the restoration of the composition and functions of the lymph to normal, and it has been found that this has been most successfully accomplished, as a number of clinical results testify, by the intravenous administration of hydrochloric acid and other minerals, one of the main results

being to restore normal pH value of the body fluids.

Although manifestly only an outline, Dr. Guy's short book should, we think, engage the serious study of all physicians desirous of getting a new slant on the problem of the nature of disease.

### Hines: Diagnosis and Treatment

**THE SPECIAL PROCEDURES IN DIAGNOSIS AND TREATMENT.** An Outline for Their Understanding and Performance. By Don Carlos Hines, M.D., Clinical Instructor in Medicine, Stanford University. Stanford University, California: Stanford University Press. 1935. Price, \$1.00.

The medical student, intern, nurse, and even the practicing physician, frequently need a small volume in which they can look up, on short notice, some points in the handling of sick folks. This unusual little volume is just the thing for such a purpose, being based on the author's lectures and demonstrations for senior medical students. It opens flat and is of a convenient size to slip into the pocket or hand-bag.

Those who invest the modest sum of one dollar in this small handbook will draw big dividends on their money.

### Gunewardene: High Blood Pressure

**HIGH BLOOD PRESSURE AND ITS COMMON SEQUELAE.** By Hugh O. Gunewardene, M.B., B.S. (Lond.), D.M.R.E. (Cantab.), Clinical Assistant, National Hospital for Diseases of the Heart, London, 1917-1924, Sir Charles Hastings Prizeman, 1931. Baltimore: William Wood & Company. 1935. Price, \$3.00.

This monograph is based on the clinical study of 250 cases of high blood pressure in various types of patients, observed during the past seven years. The observations of most value to the clinician would seem to be those made on patients with manifestations of the earlier phases of hypertension. The author points out that essential hypertension, if discovered early enough, is curable, and his main object is to guide the general practitioner and to stimulate further study of the condition.

### Dewey: Behavior Development in Infants

**BEHAVIOR DEVELOPMENT IN INFANTS.** A Survey of the Literature on Prenatal and Postnatal Activity. 1920-1934. By Evelyn Dewey. Published for the Josiah Macy, Jr., Foundation. New York: Columbia University Press. 1935. Price, \$3.50.

The field of prenatal and postnatal activity is well covered in this collection of highly specialized literature, recognizing the contributions of several authors to the subject. Studies are made over a long period of time, from both the behaviorist and Gestalt schools of thought; and, since the problems are met



differently by separate groups, the result is a confusion of ideas, each investigator seeming to work without reference to work already accomplished by others in the field.

This mass of data will give technical information to research workers in this field of

endeavor and an impetus to further study, but will not be especially helpful to clinicians. It is well organized and covers Growth Processes; Behavior of the Human Fetus; Neonatal Behavior; and Behavior During Infancy.  
M. G. D.

## New Books Received

The following books have been received in this office and will be reviewed in our pages as rapidly as possible.

**THE MANAGEMENT OF COLITIS.** By J. Arnold Bagen, M.D., F.A.C.P. Edited by Morris Fishbein, M.D. New York: National Medical Book Company, Inc. 1935. Price, \$3.00.

**COMMONER DISEASES OF THE SKIN.** By S. William Becker, M.S., M.D. Edited by Morris Fishbein, M.D. New York: National Medical Book Company, Inc. 1935. Price, \$3.00.

**AMERICAN MARTYRS TO SCIENCE THROUGH THE ROENTGEN RAYS.** By Percy Brown, M.D., F.A.C.P., F.A.C.R. Springfield and Baltimore: Charles C Thomas. 1936. Price, \$3.50.

**THE ART OF MINISTERING TO THE SICK.** By Richard C. Cabot, M.D., and Russell L. Dicks, B.D. New York: The Macmillan Company. 1936. Price, \$3.00.

**THE SINGLE, THE ENGAGED AND THE MARRIED.** A Treatise on the Mutual Adjustment for the Attainment of Happiness in Marriage. By Maurice Chideckel, M.D. With a Preface by T. Swann Harding and an Introduction by Dr. Benjamin S. Abeshouse. New York: Eugenics Publishing Company, Inc. 1936. Price, \$2.50.

**MEDICAL PAPERS DEDICATED TO HENRY ASBURY CHRISTIAN, PHYSICIAN AND TEACHER.** From His Present and Past Associates and House Officers at the Peter Bent Brigham Hospital, Boston, Massachusetts, in Honor of His 60th Birthday, February 17, 1936. Edited by C. Robert T. Monroe. Baltimore: The Waverly Press, Inc. 1936.

**INDUSTRIAL MEDICINE.** By W. Irving Clark, A.B., M.D., and Philip Drinker, S.B., Ch. E. Edited by Morris Fishbein, M.D. New York: National Medical Book Company, Inc. 1935. Price, \$3.00.

**EARLY DIAGNOSIS OF MALIGNANT DISEASE FOR THE USE OF GENERAL PRACTITIONERS.** By Malcolm Donaldson, F.R.C.S. (Eng.), M.B., B.Ch. (Cantab.), F.C.O.G., Stanford Cade, F.R.C.S. (Eng.), William Douglas Harmer, M.A. (Camb.), F.R.C.S. (Eng.), R. Ogier Ward, M.Ch. (Oxon.), F.R.C.S. (Eng.), and Arthur Tudor Edwards, M.A. (Camb.), M.D., M.Ch. (Camb.), F.R.C.S. (Eng.) New York and London: Oxford University Press. 1936. Price, \$3.00.

**FOOLS GOLD.** An Expose of Un-American Activities and Political Action in the United States Since 1860. By "The Senator from

Alaska." New York: Madison & Marshall, Inc. 1936. Price, \$2.00.

**OBSTETRICS FOR THE GENERAL PRACTITIONER.** By J. P. Greenhill, B.S., M.D., F.A.C.S. Edited by Morris Fishbein, M.D. New York: National Medical Book Company, Inc. 1935. Price, \$3.00.

**A TEXTBOOK OF OBSTETRICS FOR STUDENTS AND PRACTITIONERS.** By Frederick C. Irving, A.B., M.D., F.A.C.S. New York: The Macmillan Company. 1936. Price, \$6.00.

**THE TRUE PHYSICIAN.** The Modern "Doctor of the Old School." By Wingate M. Johnson, M.D. New York: The Macmillan Company. 1936. Price, \$1.75.

**PHYSIOLOGY OF LOVE.** By Paolo Mantegazza. Translated from the Italian by Herbert Alexander. Edited with an Introduction by Victor Robinson, M.D. New York: Eugenics Publishing Company. 1936. Price, \$5.00.

**DETACHMENT OF THE RETINA.** Operative Technique in Treatment. By J. Cole Marshall, M.D., F.R.C.S. New York and London: Oxford University Press. 1936. Price, \$2.75.

**DISEASES OF THE CHEST.** By J. Arthur Myers, M.D. Edited by Morris Fishbein, M.D. New York: National Medical Book Company, Inc. 1935. Price, \$3.00.

**ROENTGENOGRAPHIC TECHNIQUE.** A Manual for Physicians, Students and Technicians. By Darmon Artelle Rhinehart, A.M., M.D., F.A.C.R. 2nd Edition, Thoroughly Revised. Philadelphia: Lea & Febiger. 1936. Price, \$5.50.

**THE NATURAL HISTORY OF DISEASE.** By John A. Ryle, M.A., M.D., F.R.C.P. New York and London: Oxford University Press. 1936. Price, \$5.25.

**ABNORMAL ARTERIAL TENSION.** By Edward J. Stieglitz, M.S., M.D., F.A.C.P. Edited by Morris Fishbein, M.D. New York: National Medical Book Company, Inc. 1935. Price, \$3.00.

**TUBERCULOSIS.** By Gerald B. Webb, M.D. Edited by E. B. Krumhaar, M.D. Clio Medica Series. New York: Paul B. Hoeber, Inc. 1936. Price, \$2.00.

**PEDIATRIC NURSING.** By John Zahorsky, A.B., M.D., F.A.C.P. Assisted by Beryl E. Hamilton, R.N. St. Louis: The C. V. Mosby Company. 1936. Price, \$3.00.

# MEDICAL NEWS



## Surgeon General Cumming Retires

DR. Hugh S. Cumming, who for sixteen years has been Surgeon General of the U. S. Public Health Service, in which he had spent practically all of his professional life, retired early this year, at the age of 67 years. He has a world-wide reputation as an authority on public health matters, and was president of the American Public Health Association in 1931.

## The Journal of Contraception

THERE has been a definite need for a periodical in which the various scientific and professional aspects of birth control would be discussed in an ethical and instructive manner, for the information of physicians.

The *Journal of Contraception*, published under the auspices of the Birth Control Clinical Research Bureau, 17 West 16th St., New York, N. Y., is such a periodical. It carries no commercial advertising and depends upon the support of its subscribers. Every general clinician, gynecologist and obstetrician needs it. The February, 1936, issue contains a valuable article on "Household Contraceptives" which may be used with reasonable success when the more elaborate, certain and costly methods are not available.

## Study of Suicide

AN organization to be known as the Committee for the Study of Suicide has recently been incorporated in New York. This Committee plans to study suicide as a social and psychologic problem, including an investigation of its history and its occurrence among primitive races.

Those who may be interested in such an undertaking can probably obtain further information by writing to Dr. Gregory Zilboorg, Secretary, Room 1404, 57 West 57th St., New York City.

The Advertisements are NEWS! Read and use them.

## Congress of Sports Physicians

AN International Congress of Sports Physicians (medical men interested or engaged in the care of athletes) will be held in Berlin, Germany, in connection with the XI Olympic Games, July 27 to Aug. 1, inclusive, 1936. The American delegates are Drs. John Brown, Jr., of New York, and R. Tait McKenzie, of Philadelphia. Those desiring further information regarding the Congress or the Olympic Games should write to Ernst Schmitz, 665 Fifth Ave., New York City.

## School of Tuberculosis

THE twenty-second session of the Trudeau School of Tuberculosis will be held at Saranac Lake, N. Y., May 18 to June 13, inclusive, with a supplementary course, at Bellevue Hospital, New York City, from June 15 to 27. Copies of the School Prospectus may be obtained by writing to the Secretary of the School at Saranac Lake.

Look for FACTS AND COMMENTS among the advertising pages at the back.

## A Typographic Error

IN this department, in the April issue, (page 204), we mentioned some Nutritional Charts, which are available on request, but unfortunately, the name of the distributors of those charts was misspelled. It should have been the H. J. Heinz Co., N. S., Pittsburgh, Pa.

